



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

STORIES OF BIRDS AND BEASTS

MABEL OSGOOD WRIGHT

EducT

379

04.960

THIRD
BOOK

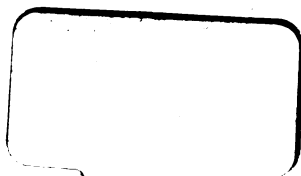
THE HEART
NATURE SERIES

Educ T 379.04.760

**HARVARD COLLEGE
LIBRARY**



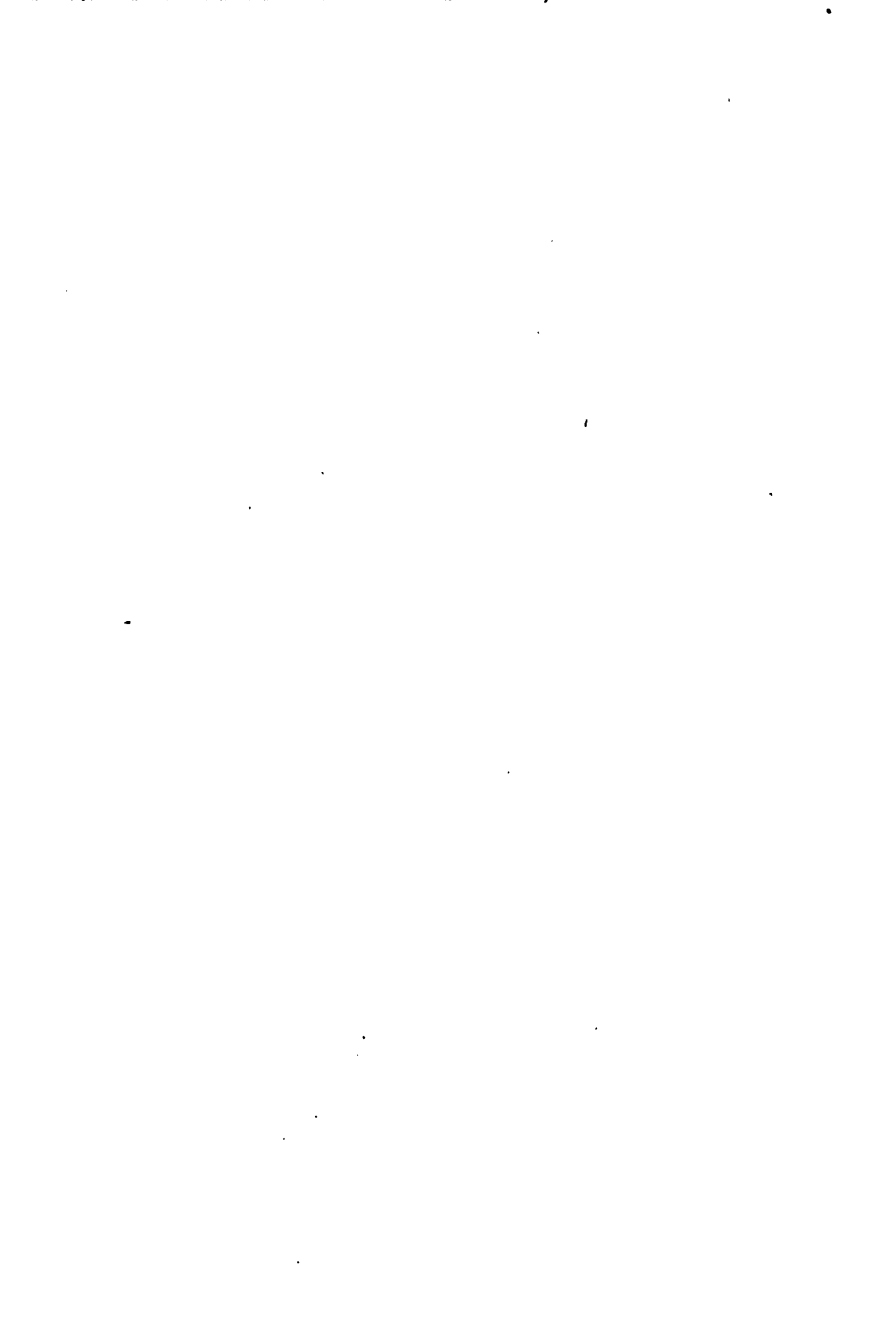
**GIFT OF THE
GRADUATE SCHOOL
OF EDUCATION**





3 2044 097 029 383

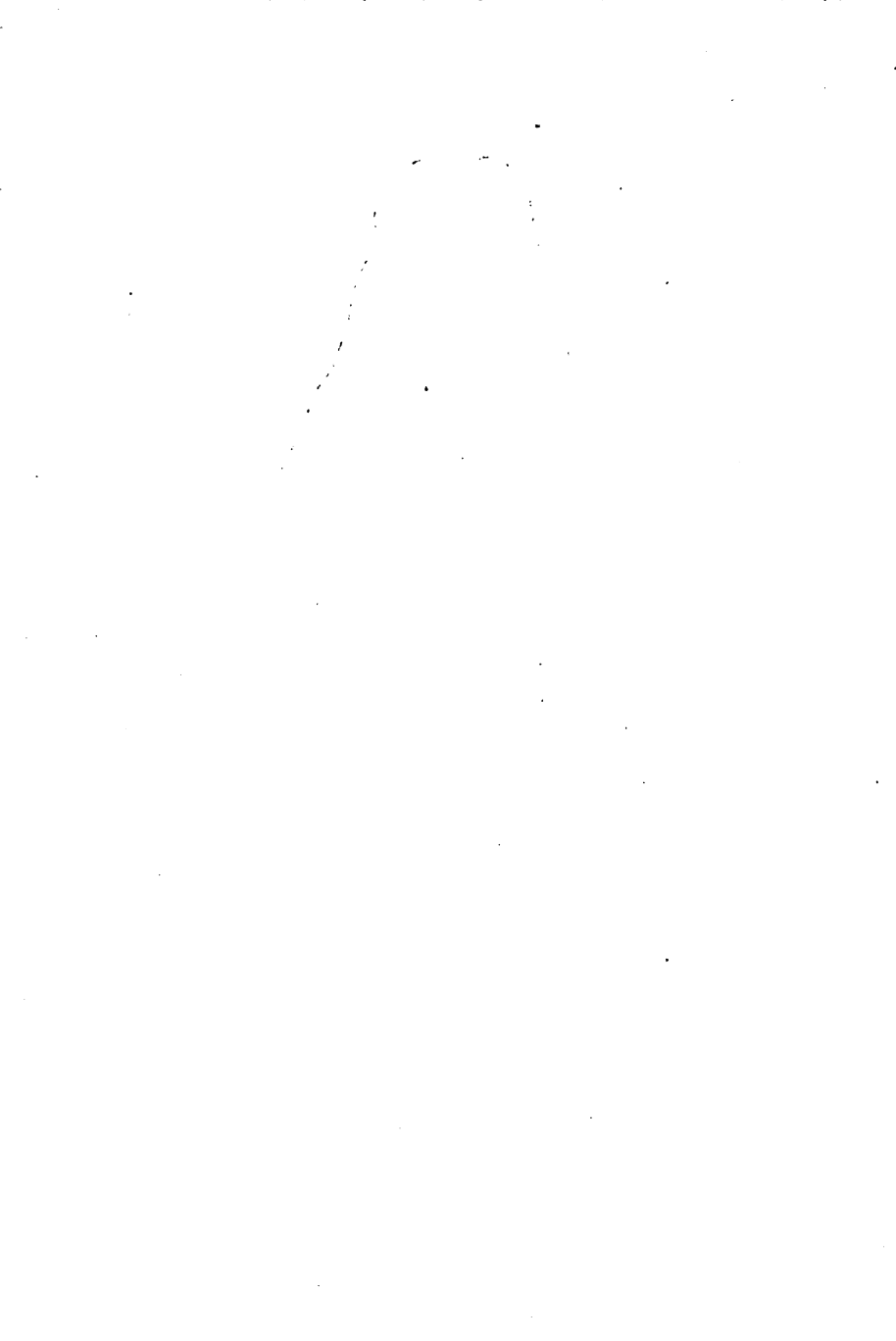
Hebeler 1999



John B. B.

STORIES OF BIRDS AND BEASTS







LONG-EARED OWL.

(See page 48.)

The Heart of Nature Series

THIRD READER

STORIES OF BIRDS AND BEASTS

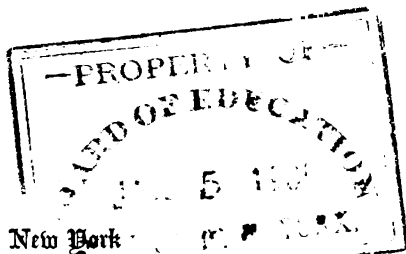
BY

MABEL OSGOOD WRIGHT

AUTHOR OF "STORIES OF EARTH AND SKY," "STORIES
OF PLANTS AND ANIMALS," ETC., ETC.

WITH ILLUSTRATIONS BY

LOUIS AGASSIZ FUERTES AND ERNEST THOMPSON SETON



THE MACMILLAN COMPANY

LONDON: MACMILLAN & CO., LTD.

1904

All rights reserved

Ex. T 377.04.76

MASSACHUSETTS COLLEGE OF LIBRARY
SCIENCE
DEPARTMENT OF EDUCATION

COPYRIGHT, 1897, 1898, 1904,
BY THE MACMILLAN COMPANY.

Set up and electrotyped. Published January, 1904.
Reprinted August, 1904.

Norwood Press
J. S. Cushing & Co. — Berwick & Smith Co.
Norwood, Mass., U.S.A.

SCENE:

THE ORCHARD FARM.

CHARACTERS:

DR. ROY HUNTER, a naturalist.

OLIVE, the Doctor's daughter.

NAT and DODO, the Doctor's nephew and niece.

MR. and MRS. BLAKE, the parents of Nat and Dodo.

RAP, a lame country boy.

MAMMY BUN, an old colored nurse and cook.

ROD, the farmer.

OLAF, a sailor and fisherman.

NEZ LONG, a charcoal burner and woodsman.

TOINETTE, Nez' wife.

QUICK, a fox terrier.

MR. WOLF, a St. Bernard dog.

CONTENTS

CHAPTER	PAGE
I. OVERTURE BY THE BIRDS	1
II. THE BUILDING OF A BIRD	9
III. THE BIRD'S NEST	30
IV. CANNIBALS IN COURT	41
V. CHORUS BY THE BIRDS	60
VI. MONARCHS IN EXILE	63
VII. WOLF!	85
VIII. UNDER THE POLAR STAR	98
IX. A SEALSKIN JACKET AT HOME	114
X. THE BEAVER'S STORY	130

ILLUSTRATIONS

	PAGES
Long-eared Owl	<i>Frontispiece</i>
Bills of Birds	21, 22
Feet of Birds	24, 25
Parts of the Bird	29
Golden Eagle	44
Screech Owl	46
Snowy Owl	49
Great Horned Owl	51
Marsh Hawk	53
Sharp-shinned Hawk	54
Red-shouldered Hawk	55
Sparrow Hawk	57
Bald Eagle	59
The Bison	66
Timber Wolf	84
Woodland Caribou	100
Musk Ox	102
Polar Bear and Seal	104
Atlantic Walrus	108
Sea Bear or Fur Seal	113
Harbor Seal	118
Beavers at Work	122



STORIES OF BIRDS AND BEASTS

I

OVERTURE BY THE BIRDS

“ We would have you to wit, that on eggs though we sit,
And are spiked on the spit, and are baked in a pan ;
Birds are older by far than your ancestors are,
And made love and made war, ere the making of man ! ”
(Andrew Lang.)

A PARTY of Swallows perched on the telegraph wires beside the highway where it passed Orchard Farm. They were resting after a breakfast of insects, which they had caught on the wing, after the custom of their family. As it was only the first of May they had plenty of time before nest-building, and so were having a little neighborly chat.

If you had glanced at these birds carelessly, you might have thought they were all of one kind ; but they were not. The smallest was the Bank Swallow, a sober-hued little fellow, with a short, sharp-pointed tail, his back feathers looking like a dusty brown cloak, fastened in front by a neck-band between his light throat and breast.

Next to him perched the Barn Swallow, a bit larger, with a tail like an open pair of glistening scissors and

his face and throat a beautiful ruddy buff. There were so many glints of color on his steel-blue back and wings, as he spread them in the sun, that it seemed as if in some of his flights he must have collided with a great soap-bubble, which left its shifting hues upon him as it burst.

This Barn Swallow was very much worried about something, and talked so fast to his friend the Tree Swallow, that his words sounded like twitters and giggles; but you would know they were words, if you could only understand them.

The Tree Swallow wore a greenish-black cloak and a spotless white vest. He was trying to be polite and listen to the Barn Swallow as well as to the Purple Martin (the biggest Swallow of all), who was a little further along on the wire; but as they both spoke at once, he found it a difficult matter.

"We shall all be turned out, I know," complained the Barn Swallow, "and after we have as good as owned Orchard Farm these three years, it is too bad. Those meddlesome House People have put two new pieces of glass in the hayloft window, and how shall I ever get in to build my nest?"

"They may leave the window open," said the Bank Swallow soothingly, for he had a cheerful disposition; "I have noticed that hayloft windows are usually left open in warm weather."

"Yes, they may leave it open, and then shut it some day after I have gone in," snapped Barney, darting off the perch to catch a fly, and grasping the wire so violently on his return, that the other birds fluttered and almost lost their footing.

"What is all this trouble about?" asked the Martin in his soft rich voice. "I live ten miles further up country, and only pass here twice a year, so that I do not know the latest news. Why must you leave the farm? It seems to be a charming place for Bird People. I see a little box under the barn eaves that would make me a fine house."

"It *is* a delightful place for us," replied the Barn Swallow; "but now the House People who own the farm are coming back to live here themselves, and everything is turned topsy-turvy. They should have asked us if we were willing for them to come. Bird People are of a *much* older race than House People anyway; it says so in their books, for I heard Rap, the lame boy down by the mill, reading about it one day when he was sitting by the river."

All the other birds laughed merrily at this, and the Martin said, "Don't be greedy, Brother Barney; those people are quite welcome to their barns and houses, if they will only let us build in their trees. Bird People own the whole sky and some of our race dive in the sea and swim in the rivers where no House People can follow us."

"You may say what you please," chattered poor unhappy Barney, "everything is awry. The Wrens always built behind the window-blinds, and now these blinds are flung wide open. The Song Sparrow nested in the long grass under the lilac bushes, but now it is all cut short; and they have trimmed away the nice mossy branches in the orchard where hundreds of the brothers built. Besides this, the Bluebird made his nest in a hole in the top of the old gate post, and what

have those people done but put up a new post with *no hole in it!*"

"Dear! dear! Think of it, *think* of it!" sang the Bluebird softly, taking his place on the wire with the others.

"What if these people should bring children with them," continued Barney, who had not finished airing his grievances — "little BOYS and CATS! Children who might climb up to our nests and steal our eggs, boys with *guns* perhaps, and striped cats which no one can see, with feet that make no sound, and *such* claws and teeth — it makes me shiver to think of it." And all the birds shook so that the wire quivered and the Bank Swallow fell off, or would have fallen, if he had not spread his wings and saved himself.

The Martin had nothing to say to this, but the little Bank Swallow, though somewhat shaken up, whispered, "There *may* be children who do not rob nests, and other boys like Rap, who would never shoot us. Cats are always sad things for birds, but these House People may not keep any!" And then he moved down a wire or two, frightened at having given his opinion.

At that moment a Chimney Swift joined the group. This Swift, who nests in chimneys, is the sooty-colored bird that flies and feeds on the wing like a Swallow, and when he is in the air looks like a big spruce cone with wings. He was followed by a Catbird, who had been in a honeysuckle, by one of the farmhouse windows, and peeped inside out of curiosity. Both were excited and evidently bubbling over with news, which half the birds of the orchard were following them to hear.

"I know all about it," cried the Swift, bracketting himself against the telegraph pole for a long talk.

"I've *seen* the House People!" screamed the Catbird.

"They wish well to the Bird People, and we shall be happier than before!" squeaked the Swift, breathless and eager. "Listen!" — and the birds all huddled together. "This morning when I flew down the chimney, wondering if I should dare build my nest there again, I heard a noise on the outside, so I dropped as far as I could and listened.

"A voice said, 'Mammy Bun, we will leave this chimney for the birds; do not make a fire here until after they have nested!' I was so surprised that I nearly fell into the grate."

"And I," interrupted the Catbird, "was looking in the window and saw the man who spoke, and Mammy Bun too. She is a very big person, wide like a woodchuck, and has a dark face like the House People down in the warm country where I spend the winter."

"There are children at the farm, *I've* seen them too," cried the Phœbe, who usually lived under the eaves of the cow-shed; "three of them — one big girl, one little girl, and a BOY!"

"I told you so!" lisped the Barn Swallow; and a chorus of *ohs* and *ahs* arose that sounded like a strange message buzzing along the wires.

"The BOY has a pocket full of pebbles and a *shooter*," gasped the Phœbe, pausing as if nothing more shocking could be said.

"Yes, but the big girl coaxed the shooter away from him," said the Chimney Swift, who was quite provoked because his story had been interrupted; "she said,

‘Cousin Nat, father won’t let you shoot birds here or do anything to frighten them away, for he loves them and has spent half his life watching them and learning their ways, and they have grown so fearless hereabouts that they are like friends.’

“But Nat said, ‘Do let me shoot some, Cousin Olive. I don’t see why Uncle Roy likes them. What good are birds anyway? They only sit in the street and say “chuck, chuck, chuck” all day long.’

“‘You say that because you have always lived in the city and the only birds you have watched are the English Sparrows, who are really as disagreeable as birds can possibly be,’ said the big girl; ‘but here you will see all the beautiful wild birds.’

“Then the little girl said, ‘Why, brother, you always loved our Canary!’

“‘Yes, but he is different; he is nice and yellow, and he knows something and sings too like everything; he isn’t like these common tree birds.’”

“Common tree birds indeed!” shrieked the Catbird.

“That is what the boy called us,” said the Chimney Swift, who then went on with his story about what he had heard the children say.

“‘Why you silly dear!’ cried the big girl, laughing a sweet little laugh like the Bobolink’s song, ‘that only proves how little you know about wild birds. Plenty of them are more brightly colored than your Canary, and some of those that wear the plainest feathers sing more beautifully than all the Canaries and cage birds in the world. This summer, when you have made friends with these wild birds, and they have let you see their homes and learn their secrets, you will make up your

mind that there are no *common birds*; for every one of them has something very uncommon about it.'

"Then our brother B. Oriole began to sing in the sugar maple over the shed. The sun was shining on his gay coat; the little girl pointed to him and whispered, 'Hush, Nat! you see Olive is right; please empty the stones out of your pocket.'"

The Chimney Swift had hardly finished his story when there was another excitement.

"News, more news!" called the Bank Swallow joyfully. He had been taking a skim over the meadows and orchard. "These House People do *not* keep cats!"

"They may not have any now, but that doesn't prove they never will," said a Robin crossly. He had just flown against a window, not understanding about the glass, and had a headache in consequence.

"They *never will keep cats*," insisted the little Swallow boldly.

"How do *you* know?" asked the birds in one breath.

"Because they keep *dogs*!" said Bankey, twittering with glee; "two nice dogs. One big and buff and bushy, with a much finer tail than the proudest fox you ever saw; and the other small and white with some dark spots, and as quick as a squirrel. This one has a short tail that sticks up like a Wren's and a nose like a weasel; one ear stands up and the other hangs down; and he has a *terrible* wink in one eye. Even a poor little Bank Swallow knows that where one of *these* dogs lives the Bird People need not fear either cats or rats!"

"I love dogs," said the black-and-white Downy Woodpecker, running up a telegraph pole in search of

grubs ; “dogs have bones to eat and I like to pick bones, especially in winter.”

“Me too,” chimed in the Nuthatch, who walks chiefly head down and wears a fashionable white vest and black necktie with a gray coat ; “and sometimes they leave bits of fat about. Yes, dogs are very friendly things indeed.”

Then a joyful murmur ran all along the wires, and Farmer Griggs, who was driving past, said to himself, “Powerful lot of ’lectricity on to-day ; should think them Swallers would get shock’t and kil’t.” But it was only the birds whispering together ; agreeing to return to their old haunts at Orchard Farm and give the House Children a chance to learn that there are no such things as “common” birds.

II

THE BUILDING OF A BIRD

It rained on Wednesday—a warm spring rain, swelling the rivers and ponds, and watering the newly planted garden ; but discouraging the birds in their nest-building, and disappointing Nat and Dodo, who wished to have their lesson in the orchard.

“Come in here, children,” said the Doctor. “The wonder room, as Dodo calls it, is a good place for a talk about feathers and bones, and the rest of the things birds are built of. I have sent for Rap, too, so that the trio may be complete.”

“Feathers and bones for building birds?” said Nat. “What a queer idea for a bird story.”

“Not a bird story exactly,” answered the Doctor. “But some things are true of all birds, and you must know them if you wish to understand the *reason why* of any bird in particular.”

In a few minutes the three children were seated on the wide settle, with a cheery log fire, to make them forget the outside dampness. Quick, the fidgety little fox-terrier, sat by the hearth, watching a possible mouse hole ; and Mr. Wolf, the tawny St. Bernard, chose the rug as a comfortable place for finishing his morning toilet.

Olive presently joined the group. The Doctor took

the dead White-throated Sparrow from the table, and began to walk about the room, stopping now in front of the fire and then by the window.

"Here is a Sparrow, different from every other kind of Sparrow, different indeed from any other sort of bird in the world — else it would not be the particular sort of a Sparrow called the White-throated. But there are a good many things that it has in common with all other birds. Can you tell me some of them?"

"I know!" said Dodo; "it has a good many feathers on it, and I guess all kinds of birds wear feathers, except some when they are very little in the nest."

"Quite right, little girl," said the Doctor. "Every bird has feathers, and no other animal has feathers. So we say, 'A bird is known by its feathers.' But what do you suppose its feathers are for?"

"To make it look nice and pretty," said Dodo promptly.

"To make it lighter, so's it can fly," added Nat.

"To keep it warm, too, I guess," was Rap's answer.

"Well, you are all three partly, but not quite, right. Certainly the beauty of a bird depends most on its feathers, being not even skin-deep, as you may well believe, if you ever noticed a chicken Mammy Bun had plucked. But, Nat, how can feathers make a bird lighter, when every one of them weighs something, and a bird has to carry them all? They make a bird a little heavier than it would be without them. Yet it is quite true that no bird could fly if you clipped its wings. So some of its feathers enable it to fly — the large ones, that grow on the wings. Then, too, the large ones that make the tail help the bird to fly, by

acting like a rudder to steer with. Perhaps the small ones too, all over the body, are of some help in flight, because they make a bird smooth, so that it can cut through the air more easily—you know they all lie one way, pointing backward from their roots to their tips. Then when Rap said feathers keep a bird warm, he guessed right. Birds wear plumage as you do clothes, and for the same purpose—to look nice and keep warm.”

“But what is ‘plumage,’ Uncle Roy?” asked Dodo; “I thought you were talking about feathers.”

“So I was, missy. Feathers are the plumage, when you take them all together. But see here,” added the Doctor, as he spread the Sparrow’s wings out, and held them where the children could look closely; “are the wings all plumage, or is there something else?”

“Of course there’s something else to wings,” said Dodo; “meat and bones, because I’ve eaten chickens’ wings.”

“Why didn’t you say, Dodo, because there has to be something for the feathers to stick into?” said Nat decidedly.

“You both have very good reasons,” said the Doctor. “The plumage of the wings grows out from the skin, just as feathers grow from any other part of the body, only the large ones are fastened to the bones, so that they stay tight in their proper places. If they were loose, they would fly up when the bird beats the air with its wings, and get out of order. See how smoothly they lie one over another! When the bird closes its wings, they come together snugly along its sides. But when the wing is spread, they slide apart

—yet not too far to form a broad, flat surface, quite stiff, but light and elastic. By beating the air with the wings birds fly along. It is something like rowing a boat. This surface pushes against the air as the flat blade of an oar pushes against the water. That is why these large stiff feathers are called the rowers. When the Wise Men talk Latin among themselves, they say *remiges*, for ‘remiges’ means rowers.”

“But, Doctor,” said Rap, who was looking sharply at the Sparrow’s wing, “all the feathers are not like that. Here are a lot of little ones, in rows on top of the wing in front, and more like them underneath, covering over the roots of the rowing feathers. Have they any name?”

“Oh, yes! Everything you can see about a bird has its own name. Those small feathers are called *coverts*, because they cover over the roots of the rowers. Those on top are the upper coverts; those underneath are the under coverts, or lining of the wings. Now notice those two pretty bands of color across the Sparrow’s wing. You see one band is formed by the tips of the longest coverts, and the other band by the tips of the next longest coverts. Those two rows of feathers are the greater and middle coverts, and all the smallest feathers, next to the front edge of the wing, are called lesser coverts. Now look at the tail, Rap, and tell me what you can find.”

“Why, there is a bunch of long stiff feathers like rowers, that slide over each other when you spread the tail, and a lot of short feathers that hide the roots of the long ones. Are they rowers and coverts too?”

"A bird does not row with his tail — he steers with it, as if it were a rudder ; and the long feathers are therefore called rudder-feathers — or *rectrices*, which is Latin for rudders. But the short ones are called coverts, like those of the wings — upper tail-coverts, and under tail-coverts."

"How funny !" said Dodo, "for a bird to have to row himself and steer himself all at once. I know I should get mixed up if I tried it with a boat. How do feathers grow, Uncle Roy ?"

"Just like your hair, little girl," said the Doctor, patting her on the head, "or your nails. Didn't you ever notice the dots all over the skin of a chicken ? Each dot is a little hole in the skin where a feather sprouts. It grows in a sheath that pushes out of the hole, like a plant coming up out of the ground from its root. For a while this sheath is full of blood to nourish the growing feather ; that is why new feathers look dark and feel soft — pin-feathers they are called. The blood dries up when the feather has unfolded to its full size, leaving it light and dry, with a horny part at the root that sticks in the hole where it grew, and a spray-like part that makes up most of the feather. The horny part becomes hollow or contains only a little dry pith ; when it is large enough, as in the case of a rowing feather from a Goose's wing, it makes a quill pen to write with. But the very tiniest feather on this Sparrow is built up in the same way.

"See! here is one," continued the Doctor, as he twitched out a feather from the Sparrow's back. "You see the quill part runs in the middle from one end to the other ; this is called the *shaft*. On each side of it

all along, except just at the root, the spray-like parts grow. They are called the *webs* or *vanes*. Now look through this magnifying glass at the web."

The children looked in turn, and each exclaimed in wonder at the sight.

"Yes, it is very wonderful. The web, that looks so smooth to the naked eye, is made up of a great many small shafts, called *barbs*, that grow out of the main shaft in rows. Every one of these small side-shafts has its own rows of still smaller shafts; and these again have little fringes along their edges, quite curly or like tiny hooks, that catch hold of the next row and hold fast. So the whole feather keeps its shape, though it seems so frail and delicate."

"Are all feathers like this one?" asked Rap.

"All are equally wonderful, and equally beautiful in construction; but there is a good deal of difference in the way the webs hold together. Almost all feathers that come to the surface are smooth and firm, and there is not much difference except in size, or shape, or color. For example, the largest wing-feather or tail-feather of this Sparrow is quite like the one I pulled out of its back in texture, only the back-feather is smaller and not so stiff. But near the roots of these feathers you notice a fluffy part, where the webs do not hold together firmly. Some feathers are as fluffy as that in their whole length. Such are called down-feathers, because they are so downy. Birds that run about as soon as they are hatched are always clothed in down, like little chickens, before their other feathers sprout; and some birds, like Ducks, wear a warm underclothing of down their whole lives. Then again some feathers

do not have any webs at all — only a slender shaft, as fine as a hair.”

“Do feathers keep on growing all the time, like my hair?” asked Dodo.

“No, my dear. They stop growing as soon as they are of the right size; and you will find your hair will do the same, when it is long enough — though that won’t be for a good many years yet, little girl. When the blood that has fed the growing feather is all dried up, the feather ceases to grow. Then after a while longer, when it has become ragged and worn, it gets loose in the skin and drops out — as I am sorry to say some of my hair is doing already. That is what we call *moulting*.”

“I know about that,” interrupted Nat. “It’s when hens shed their feathers. But I didn’t know that it was moulting when people grow bald.”

“It is very much the same thing,” said the Doctor, “only we don’t call it moulting when people lose their hair. But there is this difference. Birds wear out their feathers much faster than we do our hair, and need a new suit at least once a year, sometimes oftener. All young birds get their first new clothes when the down is worn out. Old birds generally moult as soon as they have reared their broods, which in this country is late in summer or early in the fall. Many also moult again the following spring, when they put on their wedding dress; and one of the curious things about this change of plumage is, that the new feathers often come out quite unlike those that were cast off. So a bird may differ much in appearance at different seasons and ages — in fact, most birds do. The male also differs

in many cases from the female, being more handsomely dressed than his mate."

"I don't think that's fair," said Dodo. "I shouldn't like Nat to have nicer clothes than I wear."

"But it is best for Bird People," replied the Doctor, "that the mother bird, who has to keep house and tend to the little ones, should not be too conspicuous. She is best protected from enemies when her colors are plain, and especially when they match the foliage in which she sits on her nest. If her mate has only himself to look out for, it does not so much matter how bright his plumage may be. The colors of some birds are so exactly like their surroundings, that you might look long before you could find the sober, quiet female, whose mate is flashing his gay plumage and singing his finest song, perhaps for the very purpose of attracting your attention away from his home. 'Protective coloration,' is what the Wise Men call it."

"What makes all the different colors of birds, Doctor?" asked Rap.

"That is a hard question to answer. It is natural for birds to have particular colors, just as some people have black eyes and hair, while others have blue eyes and yellow hair. But I can tell you one thing about that. Look at this Sparrow. All the colors it shows are *in* the feathers, whose various markings are due to certain substances called 'pigments,' which filter into the feathers, and there set in various patterns. The feathers are painted inside by Nature, and the colors show through. You see none of these colors are shiny like polished metal. But I could show you some birds whose plumage glitters with all the hues of the rain-

bow. That glittering is called 'iridescence.' It does not depend upon any pigment in the substance of the feathers, but upon the way the light strikes them. It is the same with the beautiful tints we see on a soap-bubble. The film of water itself is colorless, but it becomes iridescent. You might divide all the colors of birds into two classes — those that depend upon pigments in the feathers, and those that depend upon the play of light on the feathers."

"That's pretty hard to remember," said Nat; "but I know how a soap-bubble looks, though I never saw any birds look that way. Please show us one."

"I will show you two," answered the Doctor, who then went to his glass case, and took out a Wild Pigeon and a Hummingbird. "Look at the shining tints on the neck of this Pigeon, and see how the throat of this Hummingbird glitters when I turn it to the light."

"That's the prettiest color I ever saw," said Nat, "and I can remember about it now. But," he added, thinking of the way he had seen hens mope when they were moulting, "does it hurt birds to lose their feathers, uncle?"

"It is probably not as comfortable as being nicely dressed, and sometimes they seem quite miserable, especially if they shed old feathers faster than new ones can grow to replace the lost ones. Some birds, like Ducks, lose their wing-feathers all at once, and cannot fly for quite a while. But Heart of Nature is kind to his children, as a rule. Most birds shed their rowing feathers one at a time in each wing, so that they never lose their power of flight. Now this will do for wings, tails, and feathers. Come! what is the next thing

you notice about this Sparrow? Is it entirely covered with feathers?"

"Of course it isn't," said Dodo; "it hasn't any feathers on its beak or on its feet, else how could it eat and hop about?"

"That is right. These parts of a Sparrow are bare; they never have any feathers; and the skin on them is hard and horny, as different from soft thin skin as finger-nails. Now look at the beak, and think how many things a Sparrow has to do with it. He has no hands or paws, and so he must pick up everything he eats with his beak. He has no teeth, and so he must bite his food with his beak. He feeds on seeds like a Canary bird; so his beak comes to a sharp point, because seeds are small things to pick up; and it is very strong and horny, because seeds are hard to crack, to get at the kernel. Notice, too, children, that his beak is in two halves, an upper half and a lower half; when these halves are held apart his mouth is open, so that you can see the tongue inside; and when the two halves are closed together the mouth is shut. These halves are called the *upper mandible* and the *lower mandible*."

"Why, it's just like people's mouths," said Nät, "only people have lips and teeth."

"Certainly it is like our mouths. Birds are built like ourselves in a great many things, and live as we do in a great many ways. Bird People and House People are animals, and all animals must eat to live. A bird's beak is its mouth, and the under mandible moves up and down, like our chins when we eat or talk. Birds can talk as well as sing with their beaks. This

Sparrow can say 'Peabody,' and some kinds of Parrots can repeat whole sentences so as to be understood. That is another thing in which birds' beaks are like our mouths. Now look again — can you see anything else about the Sparrow's beak?"

"I see a pair of little holes at the root of the upper mandible," said Rap.

"Well, those are the nostrils!" said the Doctor. "Birds must breathe, like ourselves, and when the beak is shut they breathe through the nostrils."

"So do I," said Dodo; and then she pursed up her pretty red lips tightly, breathing quite hard through her nose. "I do think," she said, when she had finished this performance, "birds have faces, with all the things in them that we have — there are the eyes, too, on each side, like people's eyes, only they look sideways and not in front. But I don't see their ears. Have birds any ears, Uncle Roy?"

"I can show you this Sparrow's ears. See here," said the Doctor, who had run the point of his penknife under a little package of feathers on one side of the back of the Sparrow's head, and lifted them up; "what does that look like?"

"It's a hole in the skin that runs into the head," said Nat. "Can birds hear through that?"

"Of course they can. Ears of all animals are made to hear with. This Sparrow can hear quite as well as you can, Nat. Now think, children, how many things we have found about this Sparrow's head that are quite like our own, — ears, eyes, nose, mouth, and tongue, — only there are no lips or teeth, because the horny beak, with its hard edges and sharp point, answers both for

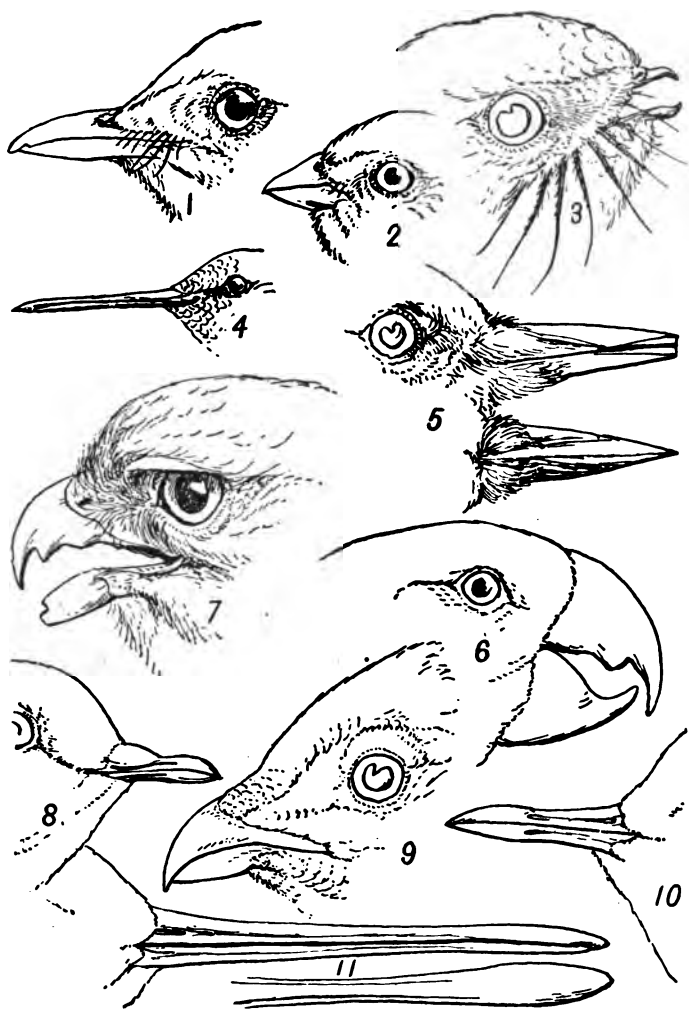
lips and teeth. I want you to learn from this how many things are really alike in Bird People and House People, though they look so different at first sight. When we come to the bird stories, you will find that birds differ very much among themselves in all these things. I will show you all sorts of beaks, of different sizes and shapes. Here are pictures of several kinds of beaks — see how much they differ in shape ! But they are all beaks, and all beaks are mouths. They all answer the same purposes in birds' lives, and the purposes are the same as those of our mouths. But now, what do you notice about this Sparrow's feet? "

"They are not a bit like my feet," said Dodo ; "they are so long and slim and hard, and the toes stick out so all around. I think mine are nicer."

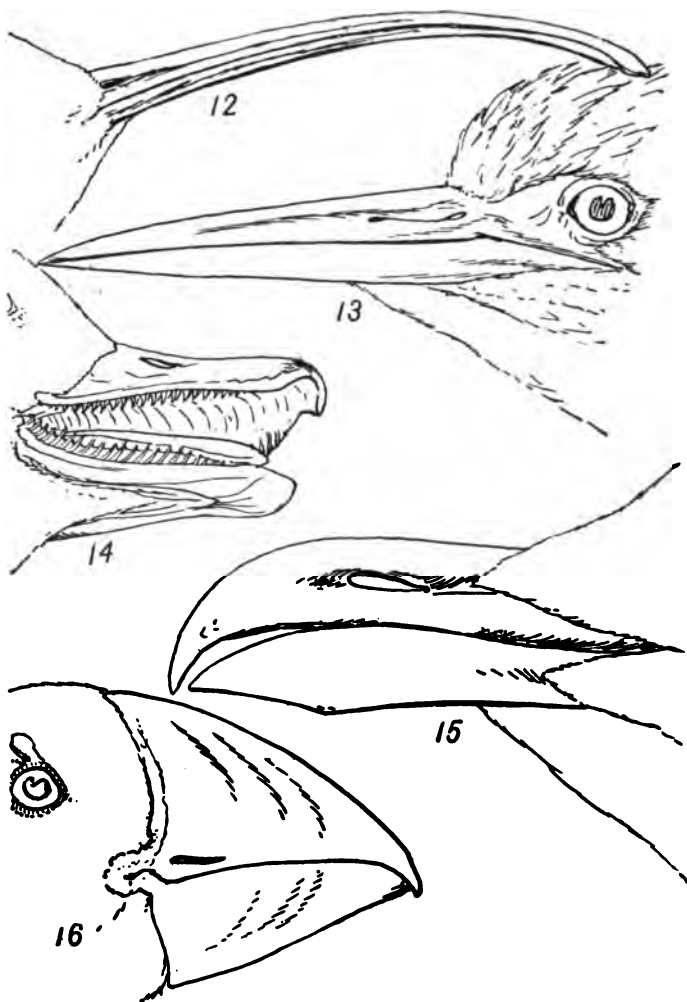
"But they would not be so useful as this Sparrow's if you had to live in a bush and hop about on the twigs," said the Doctor. "The bird's feet are fixed as nicely for that, as yours are for walking on the ground. I can show you, too, little girl, that a Sparrow's feet are a great deal more like yours than you think. Come, Rap ! Tell me what you see about this bird's feet."

"Why, they are the ends of its legs, and there is a long slim part beyond the feathers, hard and horny like the beak, and at the end of this are four toes, three in front and one behind, and they've all sharp claws on their ends."

"Very well said, my boy ! Now I will show you that such feet as the Sparrow has are as much like Dodo's as a Sparrow's beak is like her mouth. Begin with the claws — "



1. Insect-eating bill of Robin; 2. Seed-crushing bill of a Sparrow; 3. Snapping bill of Whippoorwill; 4. Needle bill of Hummingbird; 5. Chiselling bill of Woodpecker; 6. Climbing bill of Paroquet; 7. Tearing bill of Falcon; 8. Grooved drinking bill of Dove; 9. Gleaning bill of Ruffed Grouse; 10. Wedge bill of Plover; 11. Straight probing bill of Snipe.



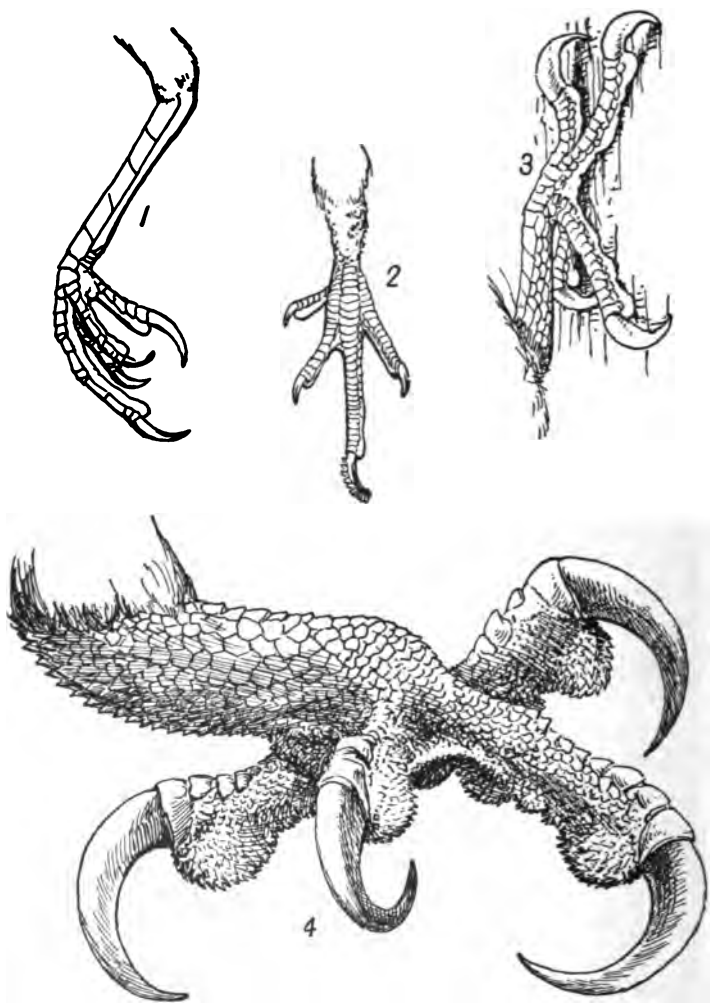
12. Curved probing bill of Curlew; 13. Spearing bill of Green Heron; 14. Strainer bill of Duck; 15. Hooked bill of Gull; 16. Ornamental bill of male Puffin in breeding season.

"I know!" exclaimed Dodo, "toe-nails! Only I think they need cutting!"

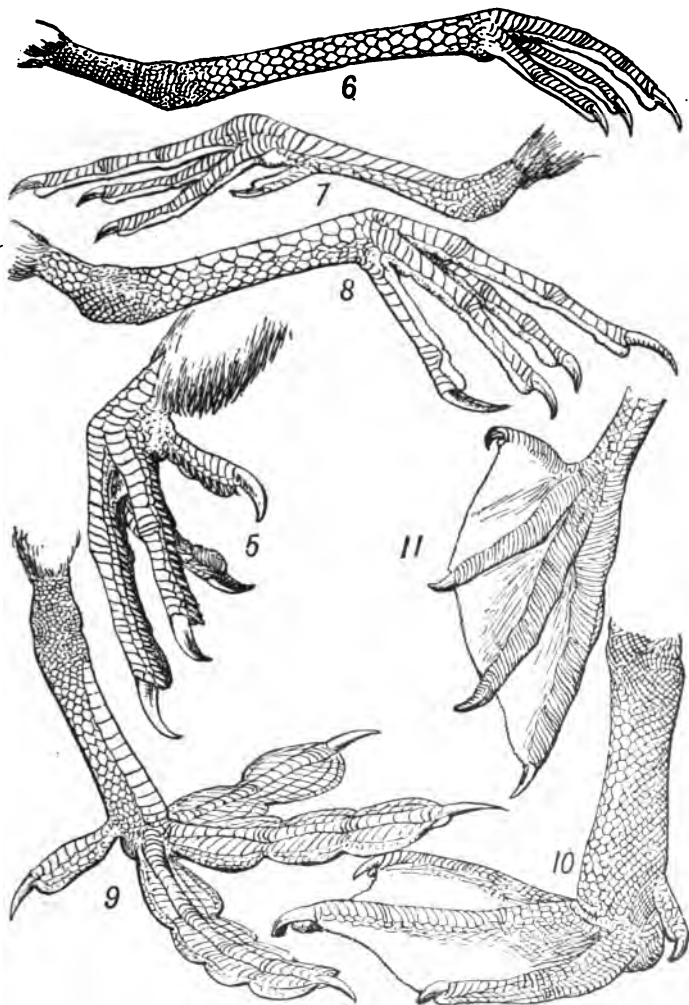
"Of course they are toe-nails," said the Doctor. "Don't nails grow on the ends of toes? All kinds of claws, on the ends of birds' and other animals' toes, are the same as nails. Some are long, sharp, and curved, like a cat's or a Sparrow's, and some are flat and blunt, like ours. I could show you some birds with claws that look just like our finger-nails. Toes, too, are pretty much the same; only this Sparrow, like most other birds, has but four, with three of them in a line in front, and the other one pointing backward. That is what makes its foot as good as a hand to hold on with when it perches on slender twigs. Almost all birds have their toes fixed that way. Some, that do not perch, have no hind toe; and birds that swim have broad webs stretched between their front toes, like Ducks. All the different kinds of feet birds have are fitted for the ways they move about on the ground, or water, or among the branches of trees and bushes, just as all their shapes of beaks are fitted for the kind of food they eat and the way they pick it up. Here are two pictures that will show you several different kinds of feet. Now you must answer the next question, Nat; what do toes grow on?"

"Feet!" said Nat promptly, then adding: "But this Sparrow hasn't any feet except its toes; they grow on its legs, because the rest of the horny part stands up — I've noticed that in Canaries."

"But all this horny part is the foot, not the leg," answered the Doctor, "though it does stand up, as you say. How could toes grow from legs without any feet



1. Ordinary foot of perching birds; 2. Foot of Nighthawk, with a comb on claw of middle toe; 3. Climbing foot of Woodpecker, with two hind toes; 4. Grasping foot of Osprey, for holding prey.



5. Scratching foot of Ruffed Grouse; 6. Wading foot of Golden Plover, with only three toes; 7. Wading foot of Snipe, with short hind toe; 8. Wading foot of Green Heron, with long hind toe; 9. Swimming foot of Coot, with lobed toes; 10. Swimming foot of Canada Goose, with three toes webbed; 11. Swimming foot of Cormorant, with all four toes webbed.

between? They never do! There has to be a foot in every animal between the toes and the legs. Now what do you call the end of your foot which is opposite the end on which the toes grow?"

"It's the heel in people, but I should think the hind toe of a bird was its heel," said Nat doubtfully, and beginning to think he did not understand.

"You might think so," said the Doctor; "but you would be wrong. All this horny part that a bird stands up on is its foot. And the top of it, nearest to the feathers, is the heel. Don't you see, when I bend the foot so," continued the Doctor, as he bent the Sparrow's foot forward, "that the top of the horny part makes a joint that stands out backward, in the same position your heel always has? All this slender horny part of the foot, above the roots of the toes, corresponds to the instep of your foot, and of course the heel comes next. You must remember the name of it — the Wise Men call it the *tarsus*."

"Then hasn't a bird got any legs, Uncle Roy, only just feet?" asked Dodo.

"Oh! yes; legs too, with a knee-joint and a hip-joint, like ours. But all these parts are up closer to the body, and hidden by the feathers, so that you cannot see them."

As the Doctor said this there was a great commotion. Quick, who had been watching the mouse hole all the while, gave a sharp bark and pounced on something. There was a feeble squeak, and it was all over with a mouse which had ventured too far from its hole.

"Poor little mousey!" said the Doctor, as he took

the limp body from the terrier's mouth. "It is quite dead. I am sorry, but it might have nibbled some of my birds. Besides, this is exactly what I wanted to teach you something about. Who can tell me the difference between a mouse and a Sparrow?"

"I can!" said Dodo; "it's all difference; a mouse hasn't any feathers, or any wings, and it has four feet, and a long tail and whiskers and teeth —"

"That will do, little girl, for differences; do you see anything alike between a Sparrow and a mouse, Rap?"

"I think the fur is something like feathers, Doctor," answered Rap; "and you told us how a beak was like a mouth without any teeth or lips; then a mouse has four feet and legs; but a bird has only two feet, and two wings instead of four legs and feet like a mouse."

"That is just what I want you all to think about," said the Doctor. "Now listen. If a Sparrow has a pair of feet that correspond to a mouse's hind feet, what do you think a Sparrow's wings correspond to in a mouse?"

"I should think they would be something like a mouse's fore feet," answered Rap, after thinking a moment.

"That is exactly right. Birds and beasts are alike in many respects. They have heads, necks, and bodies; they have tails; and they have limbs. Beasts have two pairs of limbs. We call them fore legs and hind legs. People have two pairs also. We call them arms and legs. So you see our arms correspond to the fore legs of beasts, though we never use them for moving

about, except when we go on our hands and knees, or climb trees, or swim in the water. And as for birds — why, their fore limbs are turned into wings, to fly with, so that they walk or hop on their hind limbs only, just as we do. Animals that go on all fours are called *quadrupeds*. Animals that go on their two hind limbs only, like Bird People and House People, are called *bipeds*: A Sparrow's wings are just as much like a mouse's fore legs, as a Sparrow's feathers are like a mouse's fur."

"How funny!" said Dodo. "But how are a bird's wings like fore legs, when they haven't got any paws or toes — or fingers — or claws — only just long feathers?"

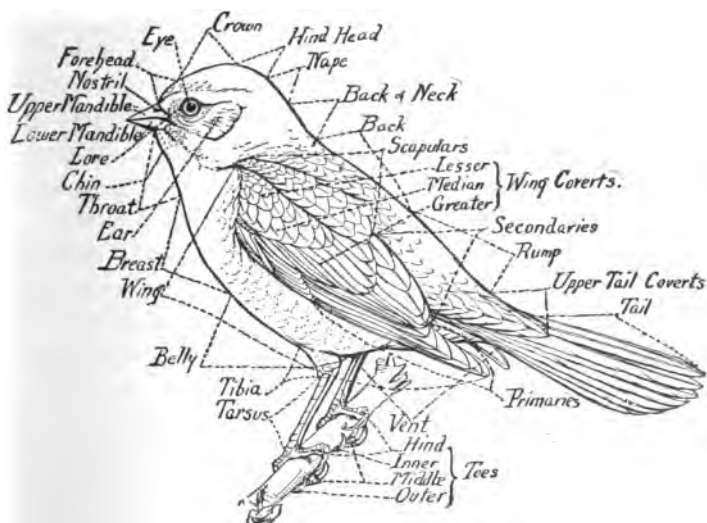
"They have fingers, and some birds' wings have claws; only you cannot see them, because they are all wrapped up in the skin and covered over with the feathers. Some day — not to-day, because you have had a long lesson already — I will show you a bird's wing with only its bones. Then you will see that it has finger-bones at the end, then hand-bones next, then bones that run from the wrist to the elbow, and then one bone that runs from the elbow to the shoulder — almost the same bones that people have in their fingers, hands, wrists, and arms. So you see wings are the same to a bird that fore legs are to a mouse or arms are to us.

"I could go through all the inside parts of birds, and show you something like the same parts in people, — stomach and bowels, to take care of the food they eat and turn it into blood to nourish them; lungs to breathe with, and keep the blood pure; heart to beat

and thus pump the warm blood into all parts of the body; brain and nerves, which are what birds think and feel with, just as we do with ours; and all their bones, which together make what we call the *skeleton*, or framework of the body, to keep the flesh in shape and support the other organs."

"Dear me!" sighed Dodo; "there must be ever so many more things inside of birds that we can't see, than there are outside."

"Of course there are!" said the Doctor. "It won't be very hard for you to remember the outside parts, and learn the names of them all. I have told you most of them that you need to remember, to understand the stories I am going to tell you about birds. See here! What do you think of this?"



III

THE BIRD'S NEST

"I WONDER why some birds build their nests so very early, when it is cold, and there are no leaves on the trees, while others wait until it is almost summer," said Rap, as they walked down a narrow lane toward the river. There were bushes lining the path on each side, and from the singing you would think that every bush had a bird on each twig. In fact, there were so many birds in sight that Nat did not know which to ask about first, and so kept looking instead of talking.

"The birds who are Citizens are usually the first to build," answered the Doctor. "They merely roved about during the winter months, and had no long journey to make before they reached the home trees again, and then the hardy seed-eating birds can return from the South much earlier than their frailer kin."

"Last year," said Rap, "when the men were chopping trees in the great wood beyond the lake, the miller went up one day to hunt coons and took me with him. It was the beginning of March and terribly cold; there were long icicles hanging on the trees, and we were glad enough to go in by the fire in the lumbermen's camp. But what do you think?—if there wasn't an Owl's nest, up in a pine tree, with two eggs in it! It was in a very lonely place, and the

miller said the Owl had borrowed an old Crow's nest and fixed it up a little."

"I should think the eggs would have frozen hard and been spoiled," said Nat.

"No, the old Owl sat on them ever so tight and would hardly budge to let the miller see them. We didn't stay long, for the Owl was a savage big thing, nearly two feet high, with yellow eyes and long feathers sticking up on its head like horns."

"A Great Horned Owl," said the Doctor. "I only wonder that it let the miller go near it at all; they are generally very wild and fierce."

"This one was sort of friends with the lumbermen," continued Rap, "for they used to hang lumps of raw meat on the bushes for it, and they said it kept the rats and mice away from the camp and was good company for them. It frightened me when I heard it first; it gave an awful scream, like a hurt person. After a while another one began to bark like a dog with a cold, just like this — 'who-o-o-o — hoo — hoo — hōō.' And, Doctor, one of the lumbermen told me that with Owls and Hawks the female is mostly bigger than the male. Do you think that is so? Because with singing birds the male is the largest."

"Among cannibal birds the female is usually the largest," answered the Doctor, who was pleased to see that Rap so often had a "because" for his questions. "These birds do a great deal of fighting, both in catching their living prey and holding their own against enemies; and as the female stays most at home, being the chief protector of the nest, she needs more strength."

"Some singing birds are real plucky too," said Rap.

"That same year I found a Robin's nest in April, when the water-pail by the well froze every night, and a Woodcock's nest in the brushwood. It's hard to see a Woodcock on the nest, they look so like dead leaves. It snowed a little that afternoon, and the poor bird's back was all white, but there she sat. It made me feel so sorry, and I was so afraid she might freeze, that I made a little roof over her of hemlock branches. And she liked that and didn't move at all; so then I wiped the snow off her back, and she seemed real comfortable. I used to go back every day after that to see her; we grew to be quite friends before the four eggs hatched, and I've seen them do queer little tricks; but I never told anybody where she lived, though, because lots of people don't seem to understand anything about birds but shooting or teasing them."

"Some day you shall tell us about what the Woodcock did, my lad. You must tell us a great many stories, for you know what you have seen yourself. That is the best knowledge of all, and it will encourage Nat to hear you," and Dr. Hunter put his arm affectionately around the shoulders of each boy.

"Hush! Wait a moment and listen to that Thrasher," said the Doctor, stopping behind some thick bushes; "he is wooing his mate!"

"What is wooing?" whispered Nat.

"Asking her to marry him and come and build a cosy home in one of these nice bushes. Listen! See! There he is, up on the very top of that young birch, with his head thrown back, singing as if his throat would split." As the children looked up they saw a fine bird with a curved beak, rusty-brown back, and

light breast streaked with black, who was clinging to a slender spray, jerking his long tail while he sang.

"It seems as if I could almost hear the words he says," said Rap.

"Birds sing in many different tones," said the Doctor. "The Thrasher's song is like some one talking cheerfully; the Meadowlark's is flute-like; the Oriole's is more like clarion notes; the Bobolink bubbles over like a babbling brook; while the dear little brown striped Song Sparrow, who is with us in hedge and garden all the year, sings pleasant home-like ballads."

"There are some birds that Olive told me can't sing a bit," said Nat, "but only call and squeak. How do they ask their mates to marry them?"

"All birds have alarm cries, and a call-note that serves the same purpose as a song, although it may not seem at all musical to us. We are naturally more interested in that order of birds whose voices are the most perfectly developed. These not only sing when they are courting, but all the time their mates are sitting upon the eggs, and until the young are ready to fly."

"Why do birds always build nests in spring?" asked Nat.

"I think because there is more for them to feed the little ones with, than when it gets to be hot and dry," said Rap, "and it gives them time to grow big and strong before winter comes, when they must go away."

"Quite right, Rap, and it also gives the parents a chance to shed the old feathers that have been worn by rubbing on the nest, grow a new, thick, warm coat for winter, and rest themselves before they set out on their

autumn journey. Do you remember what I told you that rainy day in my study about this moulting or changing of feathers?"

"Yes, I do," said Rap and Nat together. "Most birds have two coats a year, and the male's is the brighter," continued Nat eagerly, proud to show that he remembered. "The one that comes out in the spring is the gayest, so that his mate shall admire him and when this coat comes he sings his very best and —"

"Stop and take breath, my boy," laughed the Doctor; "there is plenty of time. Why do we think that the male has the gayest feathers — do you remember that also?"

"No, I've forgotten," said Nat.

"I remember," cried Rap; "it is to please the female and because she sits so much on the nest that if her feathers were as bright as the male's her enemies would see her quicker, and when the little birds hatch out they are mostly in plain colors too, like their mother."

"Oh, I remember that now," said Nat. "And after the young are hatched and the old birds need new coats, they keep rather still while they shed their feathers, because they feel weak and can't fly well."

"Then when the new feathers come they are sometimes quite different from the old ones, and seldom quite so bright — why is this, Nat?" asked the Doctor. But Nat could not think, and Rap answered: "Because in the autumn when they make the long journeys the leaves are falling from the trees, and if they were very bright the cannibal birds would see them too quickly."

"Have I told you about the Bluebird, and how, though he only sheds his feathers once a year, yet his winter coat is rusty and not bright clear blue as it is in spring?"

"I think not," answered Nat.

"Well, the outside edges of its feathers are blue, but a little deeper in the feather is brownish. So when they have worn the same feathers many months, and rubbed in and out of their little houses and bathed a great deal and cleaned their feathers off every day in the dust, as birds always do, the blue ends wear off and the rusty parts show. It is quite worth while to tell little people things when they have the patience to listen and the interest to remember."

"Yes, uncle, but it's the way you tell us about birds that makes us remember. You talk as if they were real people."

"Oh, oh, Nat!" laughed the Doctor, "if you flatter me so I shall have to hide my head in a bush like an Ostrich. Birds *are* people, though of another race from ours, and I am happy if I can make you think so. Ah! we must be near a Redwing's nest — what a commotion the colony is making!"

"Colony? I thought a colony was a lot of people who went off into a strange wild land and made a new home," said Nat.

"That is one meaning of the word, but another one is when a number of people of the same race or trade live close to each other. A bird colony is a collection of the homes of many birds of the same family. After the nesting season almost all birds live in flocks of different sizes, each particular kind flocking by itself ;

but during the migrations great flocks are often made up of smaller flocks of various kinds of birds. During the nesting season it is quite different ; the majority of birds prefer a quiet home life, each pair being independent of any others. Certain flocks, however, keep together, and all build their nests in a particular swamp or wood, and sometimes, it is said, male birds build nests to sleep in while the females are sitting. The Red-wings nest in colonies ; so do the Herons, who eat frogs and nest near water, and the little brown-cloaked Bank Swallows, who live in holes that they dig for themselves in high banks."

There were some twenty pairs of birds in this Red-wing colony, who seemed to be much frightened by the approach of visitors.

"Here is a nest in this alder bush," said the Doctor ; "step carefully on the grass hummocks, and look at it for a moment, Nat. See how neatly it is made of the dried leaves of flags and grasses, woven in and out between three upright stalks."

"Isn't it pretty?" said Nat ; "so even and deep like a cup, and not at all ragged and mussy like a Robin's nest. There are a great many different kinds of nests, aren't there, uncle?"

"Yes, the nests of birds are almost as different as their songs and other habits, and the higher the order the brood belongs to the better built is the nest. The lower orders often only make a hollow in the ground or grass, but do not collect material and *build* in the true sense. None such can be called architects."

"What is an architect?" asked Nat, who thought it was a pretty big name for any sort of a bird.

"An architect, my boy," said the Doctor, "is anybody who knows how to build anything as it ought to be built, to look the best and be the most useful, whether it is a house or a nest."

"I wonder why nests are so different," said Rap, looking down the lane toward the river where the sun was streaming in and so many little birds were flying to and fro that they seemed like last year's leaves being blown about.

"Because, as the habits of the birds cause them to live in different places, and feed in various ways, so their homes must be suitable to their surroundings, and be built in the best way to protect the young birds from harm—to keep them safe from House People, cannibal birds, and bad weather.

"The trim Thrushes and Sparrows, who are all brownish birds, and find their insect or seed food on or near the ground, build open nests low down in trees and bushes, or on the earth itself; but the gorgeous Baltimore Oriole, with his flaming feathers, makes a long pocket-shaped nest of string and strong plant fibres, which he swings high up in an elm tree, where it cannot be reached from below, and the leaves hide this cradle while the winds rock it. He knows that it would never do to trust his brilliant feathers down by the ground.

"The frail Hummingbird has no real strength to fight enemies bigger than its tiny self, but it has been given for protection the power of flying as quick as a whizzing bullet, and courage enough to attack even a Kingbird in defence of its nest, which is a tiny circle of down, covered with lichens, and is so fastened across

a branch that it looks like a knot of the limb itself. The Woodcock you saw that snowy day, Rap, knows the protection of color and draws together for a nest a few leaves of the hue of her own feathers. This nest and the bird upon it are so blended together that few eyes could separate them."

"Some birds do not make any nests, but live in holes like squirrels and coons," said Rap. "Woodpeckers and all those."

"There again the home is suited to the occupation of the bird," said the Doctor; "for Woodpeckers are Tree Trappers, who find their food by creeping about trees and picking insects and grubs from the bark. What more natural than that they should have a house close at hand in some tree whose wood is soft enough to be hollowed out? You see they have a bill like a chisel for gouging out insects, and with this same tool they make their homes."

"Bluebirds and Wrens and Martins like to live in holes and boxes, though they can't make holes for themselves," said Rap.

"Yes, the habits of many birds have changed since the country has become civilized and House People are to be found in all parts of it. Many birds, who have always been favorites with man, and have been protected by him, have gradually grown less wild, or almost tame, and now prefer living near houses and barns to building in wilder places. The Bluebird, Martin, and Wren are three very popular birds. They appreciate cosy homes and are grateful for the boxes built for them, though we know that before they had such things they must have nested in tree holes."

"I wonder where the Chimney Swifts lived before there were any chimneys," said Rap, looking across the fields to where an old stone chimney stood—the only thing left standing of an old farmhouse. Above this chimney, Swifts were circling in shifting curves, now diving inside it, now disappearing afar in the air.

"We think they must have lived in hollow trees as the Tree Swallows do now," said the Doctor; "but when House People began to clear the land they naturally cut down the dead trees first, and so the birds moved to the chimneys."

"I used to call those birds Chimney 'Swallows,' but Olive says they are made more like Hummingbirds and Nighthawks than real Swallows," continued Rap.

"Nighthawks?" said Nat. "I thought Olive said Hawks were cannibal birds. How are they relations of Swallows?"

"That is a mistake a great many people make," said the Doctor; "for the Nighthawk is not a real Hawk, but a shy bird, who has a rapid hawk-like flight, though it eats nothing but beetles, moths, and other insects. Hark! Do you hear that cry high in the air?"

"As if something was saying 'shirk-shirk'?" said Nat.

"Yes; that is a Nighthawk on its way home. Look! he is over us now, and you can see two large white spots like holes in his wings. By these you can tell it from any of the real Hawks."

"Does he build high up in a tree?" asked Rap. "I have never found his nest."

"There is a good reason for that," said the Doctor.

"There is no nest. Two eggs are laid on the bare ground, that is about the same color as the bird itself; and the eggs look too much like streaky pebbles to be easily seen. When the young are hatched they keep still until they are able to fly, and are colored so exactly like the place upon which they rest that it is almost impossible to see them, even if you know where they are."

"How much there is to learn!" sighed Nat. "I'm afraid you will have to make us a big book instead of a little one, Uncle Roy, to teach us all these things. Olive and Rap have such a start of us. Dodo and I don't know much of anything, and even what I thought I knew about birds isn't very true."

IV

CANNIBALS IN COURT

DODO's birthday and a disappointment came together on the eighth, and the disappointment took the shape of a rainy day. Not an early morning shower, with promise of warmth and clear weather; for it was one of the cold, northeasterly storms that are very trying at any time of the year, but doubly so when they come in July, and seem, for the time, to turn summer into autumn.

Dodo, Nat, Rap, and Olive stood under the shelter of the porch, the children vainly hoping that it might clear up before nine o'clock—the hour the train left—and Olive racking her brain for something that would soothe their feelings. “We might ask mammy to let us go into the kitchen and make candy,” she said. “The weather is too damp and sticky for molasses candy, but butter-scotch will harden if we put it in the dairy.” Even this did not seem to be very tempting to little people who had expected to go to the real Owl woods, and Quick barked and yelped as if he, too, felt cheated out of an expected excursion.

Presently the Doctor came out and saw the forlorn group, which, being quite heedless of the sharp slant of the rain, was rather wet and limp.

“Poor little bird-hunters!” he said — rather too

cheerfully, they thought — “you look as unhappy as the party of astronomers who went all the way to Africa to photograph an eclipse of the sun, and when the time came were so excited that they forgot to open the camera, and so took no pictures. Come into the hall and I will tell you about a plan I have. Catching cold isn’t a nice game for a birthday party.

“You expected to hear something about the cannibal birds to-day, and see the woods where a great many of them live and make their nests, didn’t you?”

“Yes,” said Dodo; “we wanted to know why they are cannibals, and see where the wicked things live that eat little Chickens and song birds.”

“Very well. Now do you know that though all Hawks and Owls sometimes eat other birds and help themselves to poultry from the barnyards, yet at the same time most of them are the farmer’s best friends?”

“No,” said Rap; “I thought they were all bad, evil birds, and that the Government often gave money to people for killing them; besides, I am sure that a Hawk took eleven of our little Chickens this very spring!”

“The Wise Men have been looking up the records of these cannibals—or Birds of Prey, as they are usually called—and find that very few of them—only two or three kinds, perhaps—should be condemned to death. The others belong to the secret guild of the Wise Watchers who, sitting silently in the shadows of the woods, or perching in the trees around the edges of fields, wait for rats, mice, moles, rabbits, gophers, beetles, cutworms, and many other creatures which destroy vegetable life. The Wise

Watchers kill these hurtful creatures, and so become the guardians of the fields."

"Oh, do tell us which ones do this and which took Rap's Chickens," said Dodo, forgetting her disappointment for the time.

"I am going to make a play for you. Some of the Owls and Hawks shall speak for themselves, and tell you about their own habits and customs. In fact, the most familiar of these cannibals shall have a hearing this morning in the wonder room. The American Eagle is to be the judge, and I think that, as you cannot go to the woods, you will like to come into my room to hear what they have to say."

"Birds talking about themselves in the wonder room!" said Dodo in a puzzled way.

"What is a hearing?" asked Nat.

"I know what a hearing is," said Rap. "It is where people are accused of doing something wrong and they go down to the courthouse, and the judge hears what they have to say about it; and, if he thinks they have done the things, he binds them over for trial. They often have hearings down in the town hall in the East Village."

"You are quite right, my boy; and at this hearing of ours, as the birds are stuffed and cannot speak, I shall speak for them. Even if they could talk, we could not understand them, unless we borrowed Tommy-Anne's magic spectacles. Now, if you will come into the study, you will find them all ready."

The children did not wait to be asked twice; Nat and Dodo rushed along the hall, followed by Rap.

In the study two tables were put together, making

a sort of platform at the end of the room. On this platform a dozen stuffed birds sat in solemn silence. The Owls were on one side, with a row of Hawks facing them on the other. A big Golden Eagle was at the foot, and a White-headed American Eagle held the place of honor at the head, on a pile of books. Each bird was mounted on a wooden perch; and, as they were all set up in very natural positions, the effect was quite startling to the children.



GOLDEN EAGLE.

"Where did all these big birds come from?" asked Nat. "They were not in the glass cases."

"No, they were in the attic. You must excuse them if their feathers look a little shabby, for it is a

long time since they flew about in the woods, and took a bath or plumed themselves."

"The judge ought to wear spectacles! May I cut him a pair out of paper?" asked Dodo. "See how wise he looks," she said, as she put the make-believe glasses on the Eagle's nose.

"Order!" called the Doctor, rapping on the table with his knuckles. "The American Eagle makes the first speech, which I will translate to you."

The Eagle looked very fierce as he sat there. His head, neck, and tail were white, but the rest of his body was dark brown. The upper part of his great yellow beak was hooked; his yellow feet were bare and scaly; and his four sharp claws, or talons as they are often called, were black. He was nearly three feet tall, and if he had spread his powerful wings he would have measured seven feet from tip to tip.

The Golden Eagle, who sat at the foot of the table, was about the same size and an equally handsome bird. He held his golden-brown head proudly erect, and his black wings folded tightly. He too had some white feathers in the tail, though none on the head; his hooked beak was black, and he wore dark leggings almost down to his powerful claws.

These two Eagles, though not exactly friends, are not enemies; for the Bald-headed one ranges over all of North America, especially in open places near the water, while his Golden brother keeps more to the western parts, and loves the loneliness of cold northern mountains.

"We Birds of Prey," said the Eagle, "who bow to no one and even sleep sitting erect—we, whose females are larger than the males for the better protection of

our nests, are accused of eating not only our smaller brethren, but also four-footed animals which are of service to man. I deny that we do this as a tribe, except when we are pressed for food, and Heart of Nature says to us all, 'Take what ye need to eat!'

"Now, you are all in honor bound to speak the truth at this hearing, and you shall be heard first, Brothers of the Darkness—you, with strange voices and feathered eye-circles—you, who have three eyelids and whose eggs are whiter even than moonlight.

"Brother Screech Owl, whose day is my night, tell us about yourself—how and where you live."

There were two Screech Owls perched side by side on one stump. They were not ten inches long, and had feathery ear-tufts standing up like horns an inch long. One Owl was mottled gray and black; the other was rusty-red; and the toes of both peeped out of holes in their thin stockings. The gray one gave a little quavering wail and said:

"I am everywhere a well-known Owl; though I say it myself, I am a good, hard-working Citizen, and in this the Wise Men agree.



SCREECH OWL.

"All day I stay by my nest hole in some old tree; but when others go to sleep I awake, and steal noiselessly on my rounds through barn, field, and garden. What for? For mice, moles, bats, and beetles. Sometimes I go a-fishing; sometimes I snatch a frog with my sharp claws—the hunting weapons of my family. Do I catch birds? Sometimes, but they are few compared to the mice I kill. When I think of mice, I become a feathered 'cat! Do mice run fast? I fly faster! Winter or summer I always hear when a mouse squeaks or a chipmunk chatters. When I swallow bones, fur, and feathers, they never give me any pain—no, never! I understand the science of digestion. Instead of making my poor little stomach grind up all the things I swallow, I just roll what I do not care to digest into little pellets, and spit them up. If you look on the ground under my home tree, you will find these little balls, and by them judge of what I eat.

"My family are also distinguished by two other odd habits. Having two sets of eyelids, an inner and an outer, we can close one or both at will. The inner one is a thin skin that we blink with, and draw across our eyes in the day-time when the light annoys us, just as House People pull down a curtain to shut out the sun. The outer lids we close only in sleep, when we put up the shutters after a night's work, and at last in death—for birds alone among all animals are able to close their own eyes when they die. The other habit is the trick of turning our heads entirely round from front to back, without wringing our necks or choking to death. This we do to enable us to see in every direction, as we cannot roll our eyes about as freely as most birds do.

"Come to think of it, I am very fond of eating one bird that, so the Wise Men say, is as bad as a mouse for mischief. I eat English Sparrows!

"One thing I wish the Wise Men would tell me. Why am I, without season or reason, sometimes rusty-red and sometimes mottled gray? It confuses my brain so that I hardly know my own face in the pond."

"Acquitted!" said Judge Eagle. "Long-eared Owl, what have you to say?"

The Long-eared Owl was about fifteen inches high. He had, as his name implied, long ear-tufts that stood up very straight over his yellow eyes, and thick tawny stockings on his feet and legs. He was finely mottled above with brown, black, and dark orange, had long brown streaks on his buff breast, and dark-brown bands on his wings and tail. He gave a hoot and spoke very quickly.

"I'm a good Citizen, too. I do not eat many birds, and those I do eat are not the useful ones who kill insects; moles, mice, rats, and beetles are my daily food. But House People do not know this, and hunt me until I am almost discouraged; for though I am a Night Owl I do not live in such wild places as some of my brethren, and so I am more easily caught. I live and nest anywhere I like, from the Atlantic to the Pacific. I rear my young equally well in an old Crow's nest in a high tree, or one I build for myself in a bush. I mean well and am a Wise Watcher. I know my voice frightens House People, but let them pity me and point their guns at something else."

"Short and to the point! Acquitted!" said the Eagle. "Snowy Owl, it is your turn."

This beautiful white Owl, marked here and there with black bars and spots, had a smooth round head like

a snowball, great yellow eyes, and thickly feathered feet; his bill and claws were black, but you could hardly see them for the thickness of the feathers in which they were muffled up. He winked with each eye, clicked his bill once or twice, and thus began :

“I’m a very good-looking bird, as you see — fatally beautiful, in fact; for House People shoot me, not on account of my sins, but because I can be stuffed and sold



SNOWY OWL.

for an ornament. I do not stay long enough in the parts of the country where they live, to do much harm, even were I a wicked Owl. My home is in Arctic regions, where my feather-lined nest rests on the ground,

and even in winter I come into the United States only when driven by snowstorms from the North.

"At home I live chiefly on lemmings, which are a sort of clumsy, short-tailed field-mice, not good for anything but to be eaten. When I go visiting I may take a little feathered game, but oftener I live on my favorite mice, or go a-fishing in creeks that are not frozen; for I am a day Owl, and can see quite well in the sunlight. You never see me except in winter, for I am a thing of cold and snow, whose acquaintance you can seldom cultivate; but if you knew me well you would find me gentle, kind, and willing to be friends with you—if you do not believe me, ask the Wise Men."

"Acquitted! You see we are proving our innocence," said the Eagle proudly. But he hesitated a moment before calling upon the Great Horned Owl, as if he himself doubted the honesty of this savage bird.

He was large, nearly two feet high, with very long ear-tufts and great staring yellow eyes in the middle of his large flat face. He was mottled on the back and wings with buff and black, had on a white cravat, and his vest was barred with black, white, and buff; his sharp black talons were almost hidden by feathers, but not so much so as the Snowy Owl's.

"None of you like me because you are afraid of me, and so you would rather condemn me than not," began the Horned Owl fiercely. "But I am not afraid of anything or anybody. I am a liberal parent and heap my nest up with food, like all the Owl and Hawk Brotherhood. If I wish a Hen or a Goose or a Turkey I take it, though I may only care to eat the head; for



GREAT HORNED OWL.

I am very dainty, and any one is welcome to what I leave. I also like wild game — Ruffed Grouse particularly ; but I eat rabbits and rats enough too, I warrant you. I could give you a long list of the evil-minded rodents I kill in every one of the States where I live ; but I won't, for you might think I wished to prove myself no cannibal. I don't care what you think of

me; for I am able to take care of myself, and quite independent.

"I do not even have to build my own nest. In February, when I need a home, there is always an old Crow's or Hawk's nest ready for me; and as for my young, they are hardy and need no pampering! Whooo-ooo-hooo—ooo! Hands off, Bird and House People! The Great Horned Owl knows how to use both beak and claws!"

"Bound over for trial," said the Eagle, "and you are lucky not to be committed for contempt of court."

"He is a very cross bird to talk so, even if he does some good," whispered Dodo to Rap; for the Doctor had given the Owl's hoot so cleverly it all seemed real to the children. Then Judge Eagle spoke again:

"Now for my brothers whose keen eyes can look at the sun himself—you who strike with the claws and rend with the beak in open daylight—it is your turn to speak. Marsh Hawk, where and how do you live?"

The Marsh Hawk was nineteen inches in length, with a long tail, pointed wings, and Owl-like face. At first glance he seemed to be a bluish-gray bird, but on close inspection one could see that his under parts were white, mottled with brown, and there was also a large white patch on his rump. He spoke very clearly and said:

"I roam all over North America, wherever there is open country and free flying, and make my nest on the ground wherever I find tufted grass or reeds to hide it. Marsh lands please me best, and so I am called the Marsh Hawk. The voices of the Hawk Brotherhood are like the voices of the winds, far-reaching, but not to be put in words. Mine is one of the softest of the cries

of the Wise Watchers. Some brothers take their pastime in the skies, but I keep near the ground, in search of the things I harry — mice and other small gnawing animals, insects, lizards, and frogs. Sometimes I take a stray Chicken or some other bird, but very few compared to the countless rodents I destroy.



MARSH HAWK.

House People do not realize that these gnawers are the greatest enemies that the Wise Watchers keep in check. Day and night these vermin gnaw at the grain, the roots

of things, the fruits, the tree bark, even the eggs and young of useful birds. I am their chief Harrier; by chance only, not choice, am I a cannibal."

"A very honest statement," said the Eagle. "Acquitted! Sharp-shinned Hawk, it is your turn."

This little Hawk, only a foot long, was bluish-gray above and had a black tail barred with ashy; his white breast was banded with reddish-brown, and he had a keen, fierce eye.

"I have very little to say for myself," he began. "Everywhere in North America I am a cannibal. I know I am small, but I can kill a bird bigger than myself, and I have a big brother who is a regular

Chicken and Hen Hawk. I hide my nest in the lengths of thick evergreens, or on a rocky ledge, and all the year round I take my own wherever I find it. I prefer to prey on birds—Dove or Sparrow, Robin or Thrush, song bird or Croaker—all are alike to me. I consider myself a true sportsman, and I do not like such tame game as mice or frogs. I pounce or dart according to my pleasure; I can fly faster than any one of you, and few small birds escape my clutches. Sometimes in winter I make my home near a colony of English Sparrows and eat them all for a change, just to see how it feels to be of some use to House People; but in spite of this I am a bold, bad bird, and as every one knows it I may as well say that I take pride in my reputation, and do not intend to reform!"

"Guilty!" said the Eagle solemnly. "Red-shouldered Hawk next."

The Red-shouldered Hawk held up his head proudly and returned the Eagle's gaze without flinching. He was a fine muscular bird, standing a little under two feet high, with deep rusty-red shoulders and reddish-brown back, while his head, neck,



SHARP-SHINNED HAWK.

and under parts were spotted and cross-barred with rusty and white. He had a black tail crossed by half a dozen white bars.

"I am a Hawk of eastern North America, living from the great plains to the Atlantic coast, going northward



RED-SHOULDERED HAWK.

to the British lands and southward to the warm-watered Gulf of Mexico. I am often called Hen Hawk by those who speak without thinking, but in truth I am not much of a bird-thief, for a good reason. I am a thoughtful bird, with the deliberate flight of a Night Owl, rather

than the dash of my daylight brethren. I clear the fields of mice and other gnawers, besides spiders, grasshoppers, and snails ; while as a frog-lover, I am a veritable Frenchman.

"I am a faithful Hawk besides, and when I am protected will nest for a lifetime in the same woodland, if there is a marsh or spring near by to furnish my daily frogs. I am faithful also to my mate through life. I help her build the nest and rear our young. If House People are kind to me, I can be a gentle friend to them, even in the trials of captivity ; but if I suspect a stranger, he must look at me only at long range, heavy though my flight appears.

"So I say boldly that I am a useful bird and a good Citizen. If you think a Hawk has stolen a pet Hen, look well before you shoot ; and if he has rusty-red shoulders count yourself mistaken — and let him go."

"A true account," said the Eagle ; "you stand acquitted. Sparrow Hawk, your turn."

This charming little Hawk, about the size of a Shrike, had all the beauty of shape and color of a song bird, combined with Hawk-like dash. His wings were narrow and pointed. His back was reddish-brown with a few black bars, and there was a broad one on the end of his tail ; his wings were partly bluish. Underneath he was white, shading to cream color and spotted with black. His head was bluish with black markings on the sides and a red spot on the top. He was not at all embarrassed at being in such grand company, for he was used to the best society, having come of noble ancestry in the Hawk line.

"You all know me," he said in a clear voice. "Since

Sparrow-killing is ordered by the Wise Men, you should think well of me — especially you House People, who love song birds. I will tell you a secret — I am thinking of eating no birds but English Sparrows in future!"

"So you *have* been eating other birds?" said Dodo.

"Y-e-s, I have, but not many more than the Shrike takes, and mostly seed-eaters — hardly ever an insect-eating song bird. Do you know how many bad insects I eat?" The little Hawk rattled off a long list, beginning with grasshoppers and ending with beetles; but he spoke so fast that the children could not remember half the names he mentioned.



SPARROW HAWK.

"Where do I live? All over North America, though I leave the colder parts in winter, for I like to be comfortable. I make my nest in some snug hole that a Woodpecker has kindly left. Sometimes, for a joke, I kill Sparrows and take their nest! Or make myself a home in a dove-cote — only I never seem to stay there

long, for the Doves tell tales about me. I can sing a little, too ; I have a high soprano voice and I —— ”

“ That will do,” interrupted the Eagle. “ For a small bird you are a great talker. But you are acquitted ! Who comes next ? Brother Osprey ? ”

The children recognized the Fish Hawk they had seen the first day they went to the sea-shore.

“ The Osprey is a fisherman like myself, so we need not question him about his habits,” continued the Eagle, who had his own private reasons for not caring to hear all the Osprey might say, remembering that he had sometimes stolen fish the Osprey had caught ; “ but I should like to tell the House Children that he is one of the long-lived birds who mate for life after the manner of true Eagles, many of whom have lived a hundred years, and also very industrious. Golden Eagle, what is your bill of fare ? ”

“ The food of a wild bird of the mountains, far from the homes of men. I seize Wild Ducks and other game birds, hares, rabbits, fawns — yes, and young calves also, if House People make their dwellings near me and bring cattle into my fortress ; but if they keep away from me, I never molest them.”

“ Humph ! ” said the Bald Eagle ; “ you and I are somewhat alike, for though I chiefly fish for a living I also kill the young of large animals, and even eat carrion when game is scarce. But as it is unusual for a judge to condemn himself, I think I must go free ; and as there are not very many of either of us, it really doesn’t matter much.”

“ How many did you condemn as really bad cannibals ? ” asked Nat, speaking to the Eagle.

“The Sharp-shinned Hawk, and the Great Horned Owl are held over for further trial!” answered Judge Eagle. “These two are the only ones who have been brought before this court, though accusations have been made against that big brother of his whom the Sharp-shin spoke of, and also against a still bigger relative he did not mention. The names of these two offenders are Cooper’s Hawk and the Goshawk, who will both be



BALD EAGLE.

brought to the bar of justice at our next session. This court is now adjourned!”

V

CHORUS BY THE BIRDS

SWALLOWS were perching on the same telegraph wires where they had met in May. Now it was September. There were Swallows of all kinds, both old and young, with whom a great many other birds stopped for a little chat.

"In a few weeks we must be off — how have you enjoyed the summer?" asked the Bank Swallow of his sharp-tailed brother from the barn.

"Excellently well! Times have changed for the better; not a single cat or rat has been seen in my hayloft all the season, and the window has been always open."

"So you have changed your mind about House People?" said the Bank Swallow slyly.

"Yes — that is, about *some* House People."

"I wish so many of the Bird Brotherhood did not leave in the winter; it makes me quite sad," murmured the Bluebird.

"Yes. Stay-at-homes, like yourself and Robins and Finches, must feel very lonely without us," said Barney kindly; "but I think likely these House People will scatter food about, so that at least you will not be hungry — that is, unless they migrate too, as the Catbird says they sometimes do."

"Dear, dear! *Think* of it, *think* of it!" warbled the Bluebird.

"Zeay! zeay!" screamed the Catbird, flying up. "N-e-w-s! N-e-w-s! The House People are to stay at our farm all winter! The man who owns this farm, the big girl, and the little girl and boy—and the mother and father bird they belong to—they are all down in the orchard, talking about it now—how they are going to something they call 'school,' over in the village, and how that boy who hops along on one leg with a stick under his wing is going with them."

"Did they say anything about the Bird Brotherhood?"

"No, but I heard them say that when the snow falls they are going up to those horrid dark Owl woods to see the foxes and little fur beasts—'Four-footed Americans' our House Man calls them."

"He gave me a better name than that," said the Barn Swallow, "one day when he was telling the children about the Brotherhood, over in the old barn. He looked straight at me and said a whole tree full of nice things."

"What did he call you? What did he say about the Brotherhood?" asked all the others, crowding around Barney.

"He said that I swept the sky free of evil insects, that I was patriotic in coming back to my birthplace to nest, and that I worked to pay my rent and taxes, and—"

"And what?" cried the others in excitement.

"He called me 'Citizen Bird'! He said *all* well-behaved birds, who have their own nests, and belong

to the guilds of the Brotherhood, are American Citizens and should be protected!"

"How badly the Cowbirds must feel!" said the chorus.

"Hip, hip, hurrah! for Citizen Bird and friendly House People!" drummed the Downy Woodpecker, beating away for dear life on a telegraph pole.

Then all the Swallows and Flycatchers began to dash about the air, whispering "Citizen Bird! Citizen Bird!" And the Bluebird flew down to the garden bushes to tell his winter companion, the Song Sparrow, all about it.

VI

MONARCHS IN EXILE



BEFORE dusk, on Thanksgiving Day, dinner was over, and the family had all gathered in Camp Saturday. Mr. Gobble, with his chestnut stuffing, proved so tempting that two small people even begged for a third piece, and every one agreed to have only a light supper before bedtime, and tell stories first.

“Is Turkey a real American, or did he come over with House People?” asked Dodo. “I suppose he did, because he’s a farm bird and very cranky to raise, Rod says.”

“Turkey is not only a true American, and the emblem of Thanksgiving Day, but our native wild Turkey is the great-grandfather of all the other Turkeys that live everywhere on farms.”

The camp was quite in order now, for Dr. Roy had sent to various places for chests of odds and ends that had been stored away and almost forgotten. The board floor was nearly covered by the furry pelts of various beasts, while others were fastened against the walls, where some fine Deer’s heads spread their

pronged and forked antlers, and seemed to wink their glass eyes as the fire flickered, casting startling shadows.

"Let's make mother a throne by the fire," said Nat, drawing out the settle.

"This old woolly cow skin will mostly cover it," said Dodo, tugging at a bundle that lay partly unfolded in the corner.

"Gently, gently," called the Doctor, coming to her aid. "That 'old cow skin' is something that belongs to the past which I could hardly replace. It once belonged to a Buffalo — that one whose head is over the window. Nat, take the other corner and we will spread the skin carefully."

"It's a pretty big skin — bigger than any of the beasts we saw at the circus; but I didn't know that Buffaloes were rare," said Nat. "I thought the wild West was full of them, and all the Indians did when they wanted meat or a coat was to go out and kill one."

"So they did once, my boy, and not so very long ago."

"There is a picture of some in your animal portfolio," said Dodo, "and in it there are lots and lots of Buffaloes all over everywhere, more than all the cows in the pasture down at the milk farm."

"What shall you tell us about to-night, father?" asked Olive, coming in, followed by the dogs. "How will you manage about the stories; take the animals by families as you did the birds?"

"No, I have another plan. In this portfolio are portraits of our most famous American Mammals,

from 'big game,' as it is called, down to the smallest nuisance animal. You shall all take turns in choosing the picture you like, and then I will tell you its story, or, if I do not know it myself, you shall hear Nez, Uncle Jack, or Olaf for a change. Then when each story is finished, you must find the animal on the ladder, and see to what family and guild he belongs. Is it a bargain?

"Dodo may choose to-night, as she is the youngest. I will turn the pictures, for the portfolio is heavy."

"Did you draw all these pictures?" Dodo asked, as she took her place by her uncle, hardly knowing what to choose from among so many.

"No, indeed, the man who drew these knew the beast brotherhood as well as we know each other. In fact, they are so true that I think Heart of Nature must have stood beside him and touched his brush and pencil."

"There is a Gray Squirrel in here," chattered Dodo, "that looks so funny and real, just like the one in our hickory, that I knew it right away. All these animals seem to be doing something, too, not sitting round looking uncomfortable, waiting to have their pictures taken like some beasts in my reader. I can't choose, uncle; I like them all. Here are three cats' heads with no bodies; they must have as nice a story as the Cheshire Cat. I think I'll shut my eyes and take the first I touch," she said finally, and her choice fell on the Buffalo, or Bison as the Wise Men call it.

"You could not have chosen better, for from this story you will learn why I value that 'old cow skin' so much. I think, if we name our stories, they will seem more interesting. Let us call this one 'Monarchs

in Exile,'” said the Doctor, as he fastened the picture with thumb pins beside the map on the wall, “and I will tell you why the Buffalo was a king, where his kingdom was, and how he comes now to be exiled.”

“My !” said Dodo, studying the picture, “he looks like a great, wild, hump-backed bull gone to fur. Doesn't the Buffalo belong to the cow family ?”

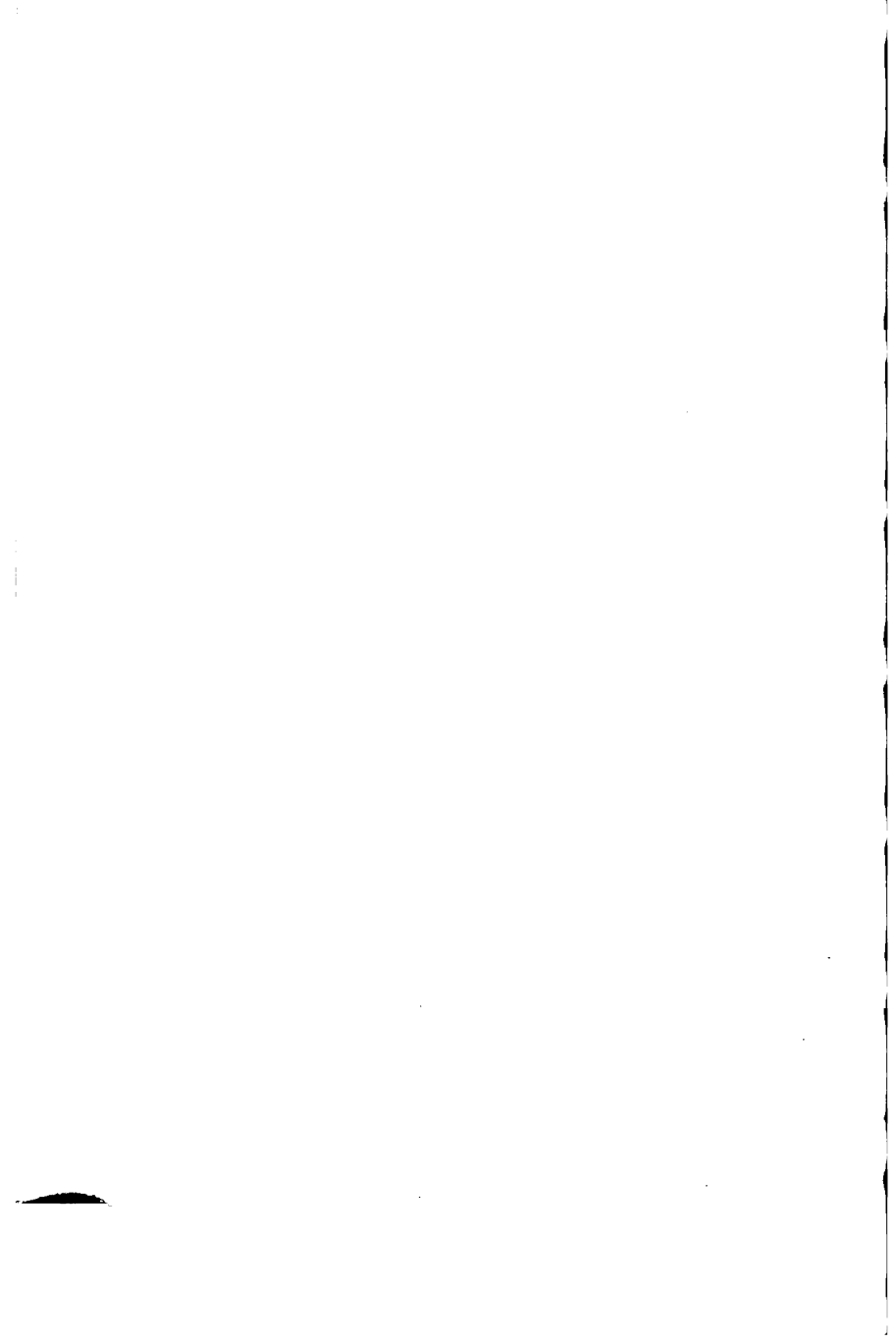
Nat laughed, but the Doctor said : “Both the imported race of cows and this wild American belong to the *Bovidæ*, which we may call the meat family for short, because all the members of it are good for food. The members of this meat family have their toes arranged in cloven hoofs, and wear pairs of hollow horns which, when once grown, last for life. They all chew the cud and are therefore vegetable eaters. You can easily remember that all of the meat family belong to the guild of Hoofed, Hollow-horned Cud-chewers.”

“Are not the horns of all animals hollow, and don't they last for life, unless something breaks them ?” asked Rap.

“No, the meat family have hollow, curving, rather smooth horns, that begin to sprout when the animal is a few months old, and continue growing until the wearer is fully grown. In the Deer family of cud-chewers these horns, or antlers as they are then called, are of solid bone, pronged, tined, or spreading. They are shed and grown anew every year, and the reason for this is very interesting — horns, prongs, and antlers being a whole story by itself. Now let me return to our Buffalo. First look at the head and hide, then at the complete animal in the picture. Can you imagine a more powerful or fierce beast ?”



THE BISON.



"No," said Nat and Dodo, promptly; but Rap hesitated a little and answered shyly:—

"He must be very big and strong, yet somehow he looks rather stupid, too, as if he wasn't thinking about much of anything. But then," he added, as if fearing to be unjust, "perhaps it is the glass eyes that make the head look so sleepy."

"You are perfectly right, Rap; stupidity was the chief fault, or rather misfortune, of the Buffalo. The foremost Buffalo in the picture is an old male; these males were often six feet high at the shoulder, and measured ten feet from the tip of the nose to the root of the tail, eight feet around the body just behind the fore legs, and weighed from fifteen to seventeen hundred pounds. Those we saw at the circus were born in captivity, and were much smaller. The ponderous head is shaggy, with a tufted crown between the curved horns that match the hoofs in blackness. The nose and lips are bare, but the chin is bearded. The shoulders and fore legs down to the knees are covered, as you see, with thick woolly hair, while the hair on the back parts of the body is shorter and more wavy. The hair varies in color and length on the different parts of the animal, ranging from yellowish brown to nearly black, and being from four to ten inches in length. Under the long hair and wool is a thick underfur, which grows on the approach of cold weather and is shed, or moulted, again before summer."

"Oh, what a mess the poor thing must get into when he moults," said Dodo, stroking the Buffalo robe. "He has nobody to comb him, and I should think he would all stick together and tangle. How does he

manage, uncle? Does he scrape through the bushes the way a snake does to pull off its old skin?"

"You have judged rightly; the Buffalo has a hard time with his coat, and only looks really respectable a very small part of the year. During four months he is well dressed, for the other eight he appears in various stages of rags and tatters. In October he is quite a gentleman, wearing a new suit of beautifully shaded brown and buff which he manages to keep fresh and bright until after Christmas. Soon after this the effect of wear and tear, storm and snow, appear in a general fading. You can easily see, however, that the Buffalo with his winter coat, added to a thick hide, could defy the weather even of the most open, wind-swept country, and must be one of the hardiest of our fourfoots.

"All this tells you how the animal looked. Next you must know why he was king of American fourfoots: it was because of his usefulness to the two-footed Americans—the Indians who lived with him in wood, plain, and prairie, but chiefly in the open plains. In the long ago every part of the Buffalo was of service to the wild people who had never seen a white face, a horse, or a gun. In fact, it is strange that this shaggy brown monster of the plain was not worshipped by the savages as a god; for during the last three hundred years of their liberty it was the Buffalo chiefly that made it possible for them to live. As long as the Indian had the Buffalo to supply his needs, he was independent and unconquerable.

"In the far back time, of which there is no written history, man had no other instruments of killing than

did the beast brotherhood, not even the stone axe, or bow and arrow, being closely akin to the wild beasts themselves, who were armed only with teeth, claws, and cunning. Man must have lived originally on fruits or animals weaker and less sure-footed than himself. In this struggle for a living the mind in man began to develop, and he shaped a club or a stone axe, made traps and then caught animals that gave him material for better weapons. What animal could give him more than the Buffalo?

"The hairy skin made warm robes and other garments, the hairless hides furnished tent coverings, bags for carrying food, and, later, when horses came, saddles, also boats, shields, rawhide ropes, etc. The sinews made the thread to sew the robes, the lattice for snow-shoes and strings for bows; from the bones were fashioned many articles of use and ornament; the hoofs and horns gave drinking cups and spoons, as well as the glue with which the Indian fastened his stone arrow-heads to their wooden shafts. Even the droppings of the Buffalo, when dried, were precious for fuel. These parts of the Buffalo would alone have made him valuable; but we have not mentioned the meat, the rich, nourishing, wild beef of North America. Think of the hundreds of pounds of food one beast would yield!"

"Wasn't it rather tough meat?" asked Nat. "That old fellow there on the wall looks as if he would have needed as much chewing as the gum Rod gave me from the old cherry tree."

"The meat of an old Buffalo bull certainly was tough, as the meat of any other old animal is likely to

be ; but the beef of the three-year-old, or the cows, is as delicious as our best roast beef.

“Only a part of the meat was eaten fresh, the rest was dried in various ways and kept for further use ; for the whole thought of the savage was given to self-preservation from two ghosts that crossed his path at every step, — his human enemies and starvation. Often the last was the more cruel of the two. So the Buffalo tongues were smoked and dried, the marrow from the bones packed away in skins, while all the titbits were pounded fine, mixed with melted fat, and sometimes berries also, to make a sort of hash more nearly like sausage-meat than anything else, which was called *pemmican*. When we think of the Buffalo, we must think of the Indian also, and if the Indian did much at last to send this beast brother into exile, he also has shared it with him.”

“Have Indians and Buffaloes always lived in North America,” asked Olive, “and if they did not, where did they come from ?”

“Always is a long time, for when the earth was very young there were no people anywhere. I suppose you mean were the Indians the first people *known* to live here. Yes, and they may have been the very first people to live on this soil — a race by themselves. At any rate one of the first European discoverers to set foot on the North American continent found the Indian here and also the Buffalo. Strangely enough the first Buffalo described did not appear as a king of the plains, but a captive in a Menagerie.

“It was nearly four hundred years ago, when Montezuma II was Emperor of Aztec Mexico, that a Men-

agerie stood in the square of the Capitol. Among the other beasts in it was one called by an early writer a 'Mexican Bull, resembling many animals combined in one, having a humped back like a Camel, a Lion's mane, horns like a Bull, a long tail, and cloven hoofs,'—this beast was the American Buffalo.

"How he came to be there no one knows, for they were not afterward found to range so far south, but he was probably captured by some of the Mexicans on their northward expeditions.

"Between this first Buffalo of the Mexican Menagerie and the last (which one of you young people may live to see) stretches the history of this tribe that exceeded in numbers any other of the greater beasts of the earth. It reads like some wild legend or impossible fairy tale, yet it is all true and took place in the western half of our own country, and when the west wind blows fiercely around the farm, it has often swept over the very plains that were the Buffalo's kingdom. Whole books have been written, and yet have not told half the tale, which is in a way the history of the killing of all the great American fourfoots as well.

"The Buffalo's history is in three acts and many scenes. First, the golden days of peace and plenty, the rightful killing for food, with laborious hunting, a fair fight between man and beast. 'Take what ye need to eat,' said Heart of Nature to man and beast alike.

"Then the white and red men joined in the pursuit; fleet horses were used in the chase instead of men's feet, bullets killing from afar replaced the arrows shot at close range. Not merely meat to eat or hides for covering, or reasonable trade, but waste and butchery. Skins

traded for whiskey, — the skins too of cows and their young.

“Last of all came the railroads, bringing the white hunter with his deadly aim into the last retreat of the herds. These three acts will show you the living, the hunting, and the butchering of the Buffalo.

“At first the Buffaloes ranged over all parts of North America where they could find suitable pasture. See, I have made lines on the map to show you how it was found in two-thirds of what are now the United States, living in western prairies, forest-park land, the plains, and far up on mountain sides, being found in the Northwest up to the land of snow. Buffaloes, as you know, are cud-chewers and, of course, grass-eaters, though when pushed to it they will eat sage brush, and for this reason they were obliged to move about during the year more than any other fourfoots, except one kind of deer; those in the south going north as summer dried the grass, and the northerly herds leaving their summer pasture before heavy snow falls. Buffaloes usually moved several hundred miles south as winter came on, and in these annual migrations great numbers lost their lives; for often the vast herds would make this journey on the full run, — stampeding, it is called. Pushing blindly along, masses of them fell into quicksand and over cliffs, or broke through river and lake ice.”

“What made them stampede? Was not that very stupid of them?” said Nat.

“Yes, but like most animals who live in flocks or herds, and people who live in thick communities, they were both curious and stupid — what one did they all

did. You know if Nanny Baa starts to run all the other sheep follow her,—where, it does not matter to them.”

“Yes, and I’ve noticed that they all try to get through the same hole in the wall, or pack tight into some little corner.”

“The grass was best in the valleys along the watercourses, and you would expect the Buffaloes to stay in such places; but they were stupid even in their search for food, and wandered out on the dry plains where the grass that bore their name was turned to standing hay by drought and heat.

“The Buffalo had no private life; his time was spent in a crowd from the time in spring, when as an awkward calf he found it difficult to keep up with the herd in its march, until his life was ended either by rushing with the stampeding herd into an engulfing bog, or, if straggling from the herd, wounded or feeble he fell a victim to the grim gray Wolves who were as the Buffaloes’ shadows, following them ceaselessly.

“The fact that the Buffaloes grazed far and wide made their daily march to the watercourses a ceremony of great importance, and their kingdom was furrowed deeply by these trails worn by innumerable feet as they all followed their leader to the chosen watering-place.”

“How did they choose their leader?” asked Dodo.

“Why, the strongest bull, of course,” said Nat.

“No, on the contrary, the leader whom they trusted was often some wise old cow. When she gave the signal, the feeding stopped, off they all marched, perhaps miles across country until water was reached,

traded for whiskey, — the skins too of cows and their young.

“Last of all came the railroads, bringing the white hunter with his deadly aim into the last retreat of the herds. These three acts will show you the living, the hunting, and the butchering of the Buffalo.

“At first the Buffaloes ranged over all parts of North America where they could find suitable pasture. See, I have made lines on the map to show you how it was found in two-thirds of what are now the United States, living in western prairies, forest-park land, the plains, and far up on mountain sides, being found in the Northwest up to the land of snow. Buffaloes, as you know, are cud-chewers and, of course, grass-eaters, though when pushed to it they will eat sage brush, and for this reason they were obliged to move about during the year more than any other fourfoots, except one kind of deer; those in the south going north as summer dried the grass, and the northerly herds leaving their summer pasture before heavy snow falls. Buffaloes usually moved several hundred miles south as winter came on, and in these annual migrations great numbers lost their lives; for often the vast herds would make this journey on the full run, — stampeding, it is called. Pushing blindly along, masses of them fell into quicksand and over cliffs, or broke through river and lake ice.”

“What made them stampede? Was not that very stupid of them?” said Nat.

“Yes, but like most animals who live in flocks or herds, and people who live in thick communities, they were both curious and stupid — what one did they all

did. You know if Nanny Baa starts to run all the other sheep follow her, — where, it does not matter to them.”

“Yes, and I’ve noticed that they all try to get through the same hole in the wall, or pack tight into some little corner.”

“The grass was best in the valleys along the watercourses, and you would expect the Buffaloes to stay in such places; but they were stupid even in their search for food, and wandered out on the dry plains where the grass that bore their name was turned to standing hay by drought and heat.

“The Buffalo had no private life; his time was spent in a crowd from the time in spring, when as an awkward calf he found it difficult to keep up with the herd in its march, until his life was ended either by rushing with the stampeding herd into an engulfing bog, or, if straggling from the herd, wounded or feeble he fell a victim to the grim gray Wolves who were as the Buffaloes’ shadows, following them ceaselessly.

“The fact that the Buffaloes grazed far and wide made their daily march to the watercourses a ceremony of great importance, and their kingdom was furrowed deeply by these trails worn by innumerable feet as they all followed their leader to the chosen watering-place.”

“How did they choose their leader?” asked Dodo.

“Why, the strongest bull, of course,” said Nat.

“No, on the contrary, the leader whom they trusted was often some wise old cow. When she gave the signal, the feeding stopped, off they all marched, perhaps miles across country until water was reached,

traded for whiskey, — the skins too of cows and their young.

“Last of all came the railroads, bringing the white hunter with his deadly aim into the last retreat of the herds. These three acts will show you the living, the hunting, and the butchering of the Buffalo.

“At first the Buffaloes ranged over all parts of North America where they could find suitable pasture. See, I have made lines on the map to show you how it was found in two-thirds of what are now the United States, living in western prairies, forest-park land, the plains, and far up on mountain sides, being found in the Northwest up to the land of snow. Buffaloes, as you know, are cud-chewers and, of course, grass-eaters, though when pushed to it they will eat sage brush, and for this reason they were obliged to move about during the year more than any other fourfoots, except one kind of deer; those in the south going north as summer dried the grass, and the northerly herds leaving their summer pasture before heavy snow falls. Buffaloes usually moved several hundred miles south as winter came on, and in these annual migrations great numbers lost their lives; for often the vast herds would make this journey on the full run, — stampeding, it is called. Pushing blindly along, masses of them fell into quicksand and over cliffs, or broke through river and lake ice.”

“What made them stampede? Was not that very stupid of them?” said Nat.

“Yes, but like most animals who live in flocks or herds, and people who live in thick communities, they were both curious and stupid — what one did they all

did. You know if Nanny Baa starts to run all the other sheep follow her, — where, it does not matter to them.”

“Yes, and I’ve noticed that they all try to get through the same hole in the wall, or pack tight into some little corner.”

“The grass was best in the valleys along the watercourses, and you would expect the Buffaloes to stay in such places; but they were stupid even in their search for food, and wandered out on the dry plains where the grass that bore their name was turned to standing hay by drought and heat.

“The Buffalo had no private life; his time was spent in a crowd from the time in spring, when as an awkward calf he found it difficult to keep up with the herd in its march, until his life was ended either by rushing with the stampeding herd into an engulfing bog, or, if straggling from the herd, wounded or feeble he fell a victim to the grim gray Wolves who were as the Buffaloes’ shadows, following them ceaselessly.

“The fact that the Buffaloes grazed far and wide made their daily march to the watercourses a ceremony of great importance, and their kingdom was furrowed deeply by these trails worn by innumerable feet as they all followed their leader to the chosen watering-place.”

“How did they choose their leader?” asked Dodo.

“Why, the strongest bull, of course,” said Nat.

“No, on the contrary, the leader whom they trusted was often some wise old cow. When she gave the signal, the feeding stopped, off they all marched, perhaps miles across country until water was reached,

traded for whiskey, — the skins too of cows and their young.

“Last of all came the railroads, bringing the white hunter with his deadly aim into the last retreat of the herds. These three acts will show you the living, the hunting, and the butchering of the Buffalo.

“At first the Buffaloes ranged over all parts of North America where they could find suitable pasture. See, I have made lines on the map to show you how it was found in two-thirds of what are now the United States, living in western prairies, forest-park land, the plains, and far up on mountain sides, being found in the Northwest up to the land of snow. Buffaloes, as you know, are cud-chewers and, of course, grass-eaters, though when pushed to it they will eat sage brush, and for this reason they were obliged to move about during the year more than any other fourfoots, except one kind of deer; those in the south going north as summer dried the grass, and the northerly herds leaving their summer pasture before heavy snow falls. Buffaloes usually moved several hundred miles south as winter came on, and in these annual migrations great numbers lost their lives; for often the vast herds would make this journey on the full run, — stampeding, it is called. Pushing blindly along, masses of them fell into quicksand and over cliffs, or broke through river and lake ice.”

“What made them stampede? Was not that very stupid of them?” said Nat.

“Yes, but like most animals who live in flocks or herds, and people who live in thick communities, they were both curious and stupid — what one did they all

did. You know if Nanny Baa starts to run all the other sheep follow her,—where, it does not matter to them.”

“Yes, and I’ve noticed that they all try to get through the same hole in the wall, or pack tight into some little corner.”

“The grass was best in the valleys along the watercourses, and you would expect the Buffaloes to stay in such places; but they were stupid even in their search for food, and wandered out on the dry plains where the grass that bore their name was turned to standing hay by drought and heat.

“The Buffalo had no private life; his time was spent in a crowd from the time in spring, when as an awkward calf he found it difficult to keep up with the herd in its march, until his life was ended either by rushing with the stampeding herd into an engulfing bog, or, if straggling from the herd, wounded or feeble he fell a victim to the grim gray Wolves who were as the Buffaloes’ shadows, following them ceaselessly.

“The fact that the Buffaloes grazed far and wide made their daily march to the watercourses a ceremony of great importance, and their kingdom was furrowed deeply by these trails worn by innumerable feet as they all followed their leader to the chosen watering-place.”

“How did they choose their leader?” asked Dodo.

“Why, the strongest bull, of course,” said Nat.

“No, on the contrary, the leader whom they trusted was often some wise old cow. When she gave the signal, the feeding stopped, off they all marched, perhaps miles across country until water was reached,

always, in spite of their stupidity, choosing the safest and most direct route to the desired spot."

"How did people find that out, by watching them?" asked Rap.

"Partly, but their paths or trails were cut so deep, sometimes two feet, in the clayey ground, that they remain to this day. You see in the picture the Buffaloes are coming down a trail, and with them is another king of the plains,—the sand-colored sluggish prairie Rattlesnake. Big as the Buffalo is, he does not care to pull the leaves from a tuft of curly grass if he sees one of these snakes near it. Nature evidently whispers to the Buffalo very early in life: 'The little horny knobs on your head will surely grow, a lap for each year: at three you will carry sharp spikes; at ten polished black curved horns; at twenty, if you live so long, gnarled, furrowed stubs,—yet do not be proud, remember that gray Rattlesnake coiled in the dust carries in his mouth two fangs as deadly as your fiercest charge. Be friends; do not dispute, but share your kingdom with him.' So they lived together, but the snake has outlasted his brother king."

"I shouldn't think then that plains would be nice places to stay," said Dodo.

"They are not," said Olive, decidedly.

"You are thinking of my story about the time I was belated, twenty years ago, and had to camp on the ground instead of coming on to your mother at the ranch," said the Doctor, laughing.

"Did snakes chase you?" asked Nat.

"No, but the spot where we were obliged to make camp was full of their holes, and our horses knew it

and were uneasy; yet they were utterly spent, so we had no choice but to rest and picket them. We stopped up the snake holes with hot ashes from our fire, which by the way was made of Buffalo chips or droppings, spread a hair rope or lariat in a circle inside, while we put ourselves *on* rather than in our blankets."

"Why did you make a circle with the rope?" asked Rap.

"Because one of our party, a scout, said a Rattlesnake would never cross a hair rope, so we put it there to please the man."

"Did they cross it?" asked all the children together.

"No, we started in the morning on our search for water before a single evil-eyed snake had wiggled out, but I thanked the ashes, not the magic rope."

"Isn't the water rather warm and stale in these water holes? It usually is in such places here," said Rap, looking at the picture again.

"Of course it is! Dearie me!!" exclaimed the Doctor. "You youngsters would not even know it for water. Wetness is the only thing it has in common with the poorest puddle on the farm. Much of the water of prairie and Bad Lands is a cross between green whitewash and pea soup. Sometimes the lime, of which it is full, shows white and crusty round the pool edges as early ice does here. But to return to our Buffalo procession.

"If it was a warm day they would often take a roll in the pools after drinking, and you can imagine what a spectacle a woolly Buffalo would be after such a bath in a mud puddle."

"How could they like to be so dirty?" said Olive,

who, in spite of her love of everything wild, was as dainty as a white kid glove.

“They had a practical reason: the mud dried into a crust that kept the insects from driving them wild. From doing this frequently, and turning round and round as they wallowed and splashed, many of these pools were shaped into sort of deep, round bath tubs, as a potter shapes a clay vessel with his thumb. In fact, Buffaloes were so fond of rolling to scratch themselves, that they also rolled head first in earth and sand, as well as water, and in time their horns came, in this way, to be worn and stubby. An English traveller, early in this century, wrote that in Pennsylvania, before the Buffaloes had learned to fear people, a man built a log house near a salt spring where many Buffaloes came to drink. The Buffaloes evidently thought the house would make a delightful place to rub and scratch, for history says they actually rubbed it down!

“Before they learned the dread of House People, and the necessity of keeping constantly on the watch, the Buffalo’s life was much like that of the great herds of domestic cattle that now range the same prairie pastures. The calves frisked and played, the herds had their times of rest, of plenty and of scarcity, though the Buffalo was a difficult animal to starve, and faced out blizzards before which the domestic cattle would turn tail and perish. This was one great reason why he should have been protected, and this magnificent monarch kept in his kingdom and developed to suit present need. The Buffalo was able to withstand all the natural dangers, of cold, hunger, and prowling Wolves, to which he was exposed,

and still increase and multiply. They made good fathers, too, taking the young calves under their protection, sometimes hustling them along through the Wolf packs with horns lowered and tails raised, keeping the calves well inside the flying wedge. Their vitality was so great that, if in falling over a precipice after some foolish run, a leg was broken, its owner was quite able to go about on the other three until it knit again. This is the first scene, — the golden days of the Buffaloes, — when they swarmed by hundreds of thousands like mosquitoes over a marsh. These were the days when the red men had no weapons sufficient to kill them.

“Listen to what came upon the Buffalo in the second scene, in the days of fair hunting, this time beginning we do not know when and lasting until threescore years ago.”

“How many is a score, more than a dozen?” interrupted Dodo.

“A score is twenty.”

“Are there two kinds of scores?” persisted Dodo, “for you know, Uncle Roy, a baker’s dozen is thirteen, and a dozen postage stamps is twelve, and down at the store they sell sticks of candy by postage-stamp measure.”

“A score is no more nor less than twenty,” laughed the Doctor; “but do not lead me away from our second scene. When the Indian had no weapons, he could slay only small game, and even when he had only a club and stone axe to help him the killing of the thick-skinned, wool-clad Buffalo must have been a difficult task. Do the best he could, the red man had to work

desperately hard for every pound of flesh or hide he captured.

"Then the mind of man began to develop and aid him. The Indian, knowing the Buffalo's habit of stampeding from fright, laid stones, sticks, and brush on either side of some open space to make a sort of driveway, wide apart at first, but gradually narrowing until it ended either in a sort of pen or at the edge of a precipice.

"After a herd was located, and this in itself was not always easy, a disturbance was made to start it running in the right direction. Perhaps a man went out and waved his arms, retreating down the driveway as the first of the herd came near to look at him. The curious animal would quicken his pace, and as soon as he was fairly started the Indian slipped behind the barricade and joined with his comrades in shouting to frighten the herd that were now following their leader at full gallop.

"On the mad throng rushed, crowding and trampling each other as the track narrowed, until, when they arrived in the pen, they were giving each other mortal wounds, the calves tossed on the horns of the old bulls and the weaker trampled to death. Then, amid great personal danger, the Indians rushed in and killed those not already wounded, with stone axes, or in later days shot them with their flint arrows. You can see that it must have taken a strong arm to send a clumsy stone arrow through the thick Buffalo hide. If the animals were driven over a cliff and fell crippled at the bottom, the killing took place there in the same manner as in the pen. After the slaughter, the men discussed various

scenes of the affair as if it had been a battle between tribes, and the women came in, skinned the animals, cut up the meat, packed it on their wheel-less dog-carts, and took it to camp."

"How can there possibly be a cart without wheels? It would only be a box that would bump and spill," said Dodo, who had kept quiet an unusually long time for her.

"This Indian cart, as wheel-less as the Eskimo sledge, is called a *travois*, and is still in use among the scattered tribes, except that now it is dragged by horses. Can you imagine how it was made?"

"Oh, I know what it is; we saw it at the Wild West Show! Don't you remember?" shouted Nat. "The thing like a pair of cross-legged shafts fastened to the horse's back, with the big ends trailing on the ground, and braces across right behind the horse's back knees, to keep it together and make a place to hold things!"

"Yes, that was a *travois*, and it is possible to drag it over ground that would quickly break cart wheels. Some time after, when the civilized races or House People came to America and settled along the coasts, the horse found its way among the Indians. He came with the Spanish through Mexico in the South, and from the Canadian French in the North. Soon an Indian's wealth began to be measured by horses, as we measure ours by dollars. Indians mounted on half-breed horses followed the Buffalo over the plains, with greater success, for, as the old range of these animals in the East and South was being peopled and cultivated, the Buffalo crowded westward, as the

desperately hard for every pound of flesh or hide he captured.

"Then the mind of man began to develop and aid him. The Indian, knowing the Buffalo's habit of stampeding from fright, laid stones, sticks, and brush on either side of some open space to make a sort of driveway, wide apart at first, but gradually narrowing until it ended either in a sort of pen or at the edge of a precipice.

"After a herd was located, and this in itself was not always easy, a disturbance was made to start it running in the right direction. Perhaps a man went out and waved his arms, retreating down the driveway as the first of the herd came near to look at him. The curious animal would quicken his pace, and as soon as he was fairly started the Indian slipped behind the barricade and joined with his comrades in shouting to frighten the herd that were now following their leader at full gallop.

"On the mad throng rushed, crowding and trampling each other as the track narrowed, until, when they arrived in the pen, they were giving each other mortal wounds, the calves tossed on the horns of the old bulls and the weaker trampled to death. Then, amid great personal danger, the Indians rushed in and killed those not already wounded, with stone axes, or in later days shot them with their flint arrows. You can see that it must have taken a strong arm to send a plunging arrow through the thick Buffalo robe. If the animals were driven over a cliff and the killing took place in the pen.

scenes of the affair as if it had been a battle between tribes, and the women came in, skinned the animal, cut up the meat, packed it on their wheel-less dog-carts, and took it to camp."

"How can there possibly be a cart without wheels? It would only be a box that would bump and spill," said Dodo, who had kept quiet an unusually long time for her.

"This Indian cart, as wheel-less as the Eskimo sledge, is called a *travois*, and is still in use among the scattered tribes, except that now it is dragged by horses. Can you imagine how it was made?"

"Oh, I know what it is; we saw it at the West Show! Don't you remember?" shouted Nat. "The thing like a pair of cross-legged shafts fastened to the horse's back, with the big ends trailing on the ground, and braces across right behind the horse's back knees, to keep it together and make a place to hold things!"

"Yes, that was a *travois*, and it is possible to drag it over ground that would quickly break cart wheels. Some time after, when the civilized races or Horse People came to America and settled along the coasts, the horse found its way among the Indians. He came with the Spanish through Mexico in the South, and from the Canadian French in the North. Soon an animal began to be measured by horses, as things were by dollars. He followed the trail over the plains, success, for, a large number of these animals came from the East and West, being peopled by the Buffalo, and so on, as the

desperately hard for every pound of flesh or hide he captured.

"Then the mind of man began to develop and aid him. The Indian, knowing the Buffalo's habit of stampeding from fright, laid stones, sticks, and brush on either side of some open space to make a sort of driveway, wide apart at first, but gradually narrowing until it ended either in a sort of pen or at the edge of a precipice.

"After a herd was located, and this in itself was not always easy, a disturbance was made to start it running in the right direction. Perhaps a man went out and waved his arms, retreating down the driveway as the first of the herd came near to look at him. The curious animal would quicken his pace, and as soon as he was fairly started the Indian slipped behind the barricade and joined with his comrades in shouting to frighten the herd that were now following their leader at full gallop.

"On the mad throng rushed, crowding and trampling each other as the track narrowed, until, when they arrived in the pen, they were giving each other mortal wounds, the calves tossed on the horns of the old bulls and the weaker trampled to death. Then, amid great personal danger, the Indians rushed in and killed those not already wounded, with stone axes, or in later days shot them with their flint arrows. You can see that it must have taken a strong arm to send a clumsy stone arrow through the thick Buffalo hide. If the animals were driven over a cliff and fell crippled at the bottom, the killing took place there in the same manner as in the pen. After the slaughter, the men discussed various

scenes of the affair as if it had been a battle between tribes, and the women came in, skinned the animals, cut up the meat, packed it on their wheel-less dog-carts, and took it to camp."

"How can there possibly be a cart without wheels? It would only be a box that would bump and spill," said Dodo, who had kept quiet an unusually long time for her.

"This Indian cart, as wheel-less as the Eskimo sledge, is called a *travois*, and is still in use among the scattered tribes, except that now it is dragged by horses. Can you imagine how it was made?"

"Oh, I know what it is; we saw it at the Wild West Show! Don't you remember?" shouted Nat. "The thing like a pair of cross-legged shafts fastened to the horse's back, with the big ends trailing on the ground, and braces across right behind the horse's back knees, to keep it together and make a place to hold things!"

"Yes, that was a *travois*, and it is possible to drag it over ground that would quickly break cart wheels. Some time after, when the civilized races or House People came to America and settled along the coasts, the horse found its way among the Indians. He came with the Spanish through Mexico in the South, and from the Canadian French in the North. Soon an Indian's wealth began to be measured by horses, as we measure ours by dollars. Indians mounted on half-breed horses followed the Buffalo over the plains, with greater success, for, as the old range of these animals in the East and South was being peopled and cultivated, the Buffalo crowded westward, as the

desperately hard for every pound of flesh or hide he captured.

"Then the mind of man began to develop and aid him. The Indian, knowing the Buffalo's habit of stampeding from fright, laid stones, sticks, and brush on either side of some open space to make a sort of driveway, wide apart at first, but gradually narrowing until it ended either in a sort of pen or at the edge of a precipice.

"After a herd was located, and this in itself was not always easy, a disturbance was made to start it running in the right direction. Perhaps a man went out and waved his arms, retreating down the driveway as the first of the herd came near to look at him. The curious animal would quicken his pace, and as soon as he was fairly started the Indian slipped behind the barricade and joined with his comrades in shouting to frighten the herd that were now following their leader at full gallop.

"On the mad throng rushed, crowding and trampling each other as the track narrowed, until, when they arrived in the pen, they were giving each other mortal wounds, the calves tossed on the horns of the old bulls and the weaker trampled to death. Then, amid great personal danger, the Indians rushed in and killed those not already wounded, with stone axes, or in later days shot them with their flint arrows. You can see that it must have taken a strong arm to send a clumsy stone arrow through the thick Buffalo hide. If the animals were driven over a cliff and fell crippled at the bottom, the killing took place there in the same manner as in the pen. After the slaughter, the men discussed various

scenes of the affair as if it had been a battle between tribes, and the women came in, skinned the animals, cut up the meat, packed it on their wheel-less dog-carts, and took it to camp."

"How can there possibly be a cart without wheels? It would only be a box that would bump and spill," said Dodo, who had kept quiet an unusually long time for her.

"This Indian cart, as wheel-less as the Eskimo sledge, is called a *travois*, and is still in use among the scattered tribes, except that now it is dragged by horses. Can you imagine how it was made?"

"Oh, I know what it is; we saw it at the Wild West Show! Don't you remember?" shouted Nat. "The thing like a pair of cross-legged shafts fastened to the horse's back, with the big ends trailing on the ground, and braces across right behind the horse's back knees, to keep it together and make a place to hold things!"

"Yes, that was a *travois*, and it is possible to drag it over ground that would quickly break cart wheels. Some time after, when the civilized races or House People came to America and settled along the coasts, the horse found its way among the Indians. He came with the Spanish through Mexico in the South, and from the Canadian French in the North. Soon an Indian's wealth began to be measured by horses, as we measure ours by dollars. Indians mounted on half-breed horses followed the Buffalo over the plains, with greater success, for, as the old range of these animals in the East and South was being peopled and cultivated, the Buffalo crowded westward, as the

desperately hard for every pound of flesh or hide he captured.

"Then the mind of man began to develop and aid him. The Indian, knowing the Buffalo's habit of stampeding from fright, laid stones, sticks, and brush on either side of some open space to make a sort of driveway, wide apart at first, but gradually narrowing until it ended either in a sort of pen or at the edge of a precipice.

"After a herd was located, and this in itself was not always easy, a disturbance was made to start it running in the right direction. Perhaps a man went out and waved his arms, retreating down the driveway as the first of the herd came near to look at him. The curious animal would quicken his pace, and as soon as he was fairly started the Indian slipped behind the barricade and joined with his comrades in shouting to frighten the herd that were now following their leader at full gallop.

"On the mad throng rushed, crowding and trampling each other as the track narrowed, until, when they arrived in the pen, they were giving each other mortal wounds, the calves tossed on the horns of the old bulls and the weaker trampled to death. Then, amid great personal danger, the Indians rushed in and killed those not already wounded, with stone axes, or in later days shot them with their flint arrows. You can see that it must have taken a strong arm to send a clumsy stone arrow through the thick Buffalo hide. If the animals were driven over a cliff and fell crippled at the bottom, the killing took place there in the same manner as in the pen. After the slaughter, the men discussed various

scenes of the affair as if it had been a battle between tribes, and the women came in, skinned the animals, cut up the meat, packed it on their wheel-less dog-carts, and took it to camp."

"How can there possibly be a cart without wheels? It would only be a box that would bump and spill," said Dodo, who had kept quiet an unusually long time for her.

"This Indian cart, as wheel-less as the Eskimo sledge, is called a *travois*, and is still in use among the scattered tribes, except that now it is dragged by horses. Can you imagine how it was made?"

"Oh, I know what it is; we saw it at the Wild West Show! Don't you remember?" shouted Nat. "The thing like a pair of cross-legged shafts fastened to the horse's back, with the big ends trailing on the ground, and braces across right behind the horse's back knees, to keep it together and make a place to hold things!"

"Yes, that was a *travois*, and it is possible to drag it over ground that would quickly break cart wheels. Some time after, when the civilized races or House People came to America and settled along the coasts, the horse found its way among the Indians. He came with the Spanish through Mexico in the South, and from the Canadian French in the North. Soon an Indian's wealth began to be measured by horses, as we measure ours by dollars. Indians mounted on half-breed horses followed the Buffalo over the plains, with greater success, for, as the old range of these animals in the East and South was being peopled and cultivated, the Buffalo crowded westward, as the

desperately hard for every pound of flesh or hide he captured.

"Then the mind of man began to develop and aid him. The Indian, knowing the Buffalo's habit of stampeding from fright, laid stones, sticks, and brush on either side of some open space to make a sort of driveway, wide apart at first, but gradually narrowing until it ended either in a sort of pen or at the edge of a precipice.

"After a herd was located, and this in itself was not always easy, a disturbance was made to start it running in the right direction. Perhaps a man went out and waved his arms, retreating down the driveway as the first of the herd came near to look at him. The curious animal would quicken his pace, and as soon as he was fairly started the Indian slipped behind the barricade and joined with his comrades in shouting to frighten the herd that were now following their leader at full gallop.

"On the mad throng rushed, crowding and trampling each other as the track narrowed, until, when they arrived in the pen, they were giving each other mortal wounds, the calves tossed on the horns of the old bulls and the weaker trampled to death. Then, amid great personal danger, the Indians rushed in and killed those not already wounded, with stone axes, or in later days shot them with their flint arrows. You can see that it must have taken a strong arm to send a clumsy stone arrow through the thick Buffalo hide. If the animals were driven over a cliff and fell crippled at the bottom, the killing took place there in the same manner as in the pen. After the slaughter, the men discussed various

scenes of the affair as if it had been a battle between tribes, and the women came in, skinned the animals, cut up the meat, packed it on their wheel-less dog-carts, and took it to camp."

"How can there possibly be a cart without wheels? It would only be a box that would bump and spill," said Dodo, who had kept quiet an unusually long time for her.

"This Indian cart, as wheel-less as the Eskimo sledge, is called a *travois*, and is still in use among the scattered tribes, except that now it is dragged by horses. Can you imagine how it was made?"

"Oh, I know what it is; we saw it at the Wild West Show! Don't you remember?" shouted Nat. "The thing like a pair of cross-legged shafts fastened to the horse's back, with the big ends trailing on the ground, and braces across right behind the horse's back knees, to keep it together and make a place to hold things!"

"Yes, that was a *travois*, and it is possible to drag it over ground that would quickly break cart wheels. Some time after, when the civilized races or House People came to America and settled along the coasts, the horse found its way among the Indians. He came with the Spanish through Mexico in the South, and from the Canadian French in the North. Soon an Indian's wealth began to be measured by horses, as we measure ours by dollars. Indians mounted on half-breed horses followed the Buffalo over the plains, with greater success, for, as the old range of these animals in the East and South was being peopled and cultivated, the Buffalo crowded westward, as the

Indians themselves were soon to be crowded from their hunting-grounds. This was the beginning of the end, though it took many years yet to drive the monarch from his kingdom.

"Act third came, passed rapidly and with it the Buffalo. Firearms, from musket to pistol, were plentiful, and then followed the deadly, long-range rifle. Stupid greed fell upon the Indian and white settler alike. No one listened to the warning cry, 'Take what ye need to eat.' It was not only flesh for food and hides for covering, but hides for sale, and cow hides at that, with no respect of season. The Indian found that much deadly fire-water could be bought for Buffalo skins, and also that the hides of the females and calves were the softest and most valuable.

"So then the massacre began; for it was outright murder to kill the females and young. Whites and Indians went out to kill, as an army prepared to manœuvre, surprise, trap, and give no quarter. The Buffaloes were chased by men on horseback, who shot with pistols, as more easily used with one hand, and were also shot at from ambush with the long-range rifle, so that the poor bewildered things, often seeing no enemy, did not know in what direction to escape, and huddled together helpless victims. Still they held their own and increased until the last scene of all took place; and it seems to me that it was only yesterday.

"A railroad stretched its iron arm across the country,—it was the Union Pacific. Have you ever seen the ants rush out of a great hill that has been disturbed? Could you count them?"

"Oh," said Rap, "I've seen them often, and you

could no more count them than you could drops of water in a hurry."

"Well, so it was with the Buffaloes; there were never any large fourfoots on earth to equal them in numbers, and even in my day we have true records of a single herd of no less than 4,000,000 head. A friend of mine once, riding on a train, passed for more than one hundred miles through a single herd. It was dangerous, I can tell you, for the trains, and they often had to stop to let the Buffaloes pass by. At this time the Buffaloes were then in two great herds, the northern and the southern. Then these began to melt away as great snowballs do in the sun. Railroads meant an easy way to reach the Buffaloes, an easy way to transport the skins; for it was the skin more than the meat that was desired. The engine whistle sounded the exile of this monarch, and for ten years his kingdom, shrinking and shifting, was a battlefield strewn with skinned carcasses. Next, the horns were gathered, and finally the bleached bones themselves were carried away to be ground into fertilizer, and thus make the obliteration complete.

"During a few years more there were stragglers here and there, and, in 1890, when I was going westward from the Black Hills in Wyoming, I shot the beast whose head and skin we have here now. I said, 'I will take this eastward when I have a home again, that my grandchildren may believe that such beasts lived, and that their grandfather knew them on their native plains, for by that time this king will be in exile.' It has all happened sooner than I thought.

"Now a few, a mere handful, twenty-four perhaps in

all, live wild in the Yellowstone Park. A hundred more are scattered here and there in kind captivity, where they may live for some time, but lose their type and spirits like the captive Indians. Now you may travel the plains from New Mexico north and see no other trace of the Buffalo than a weather-beaten skull, — the perch for a burrowing Owl, or the retreat of the other king, the Rattlesnake.

“As the Buffalo vanished, the Indian as a freeman vanished also; his wild beef is gone and he is given rations in begrudged charity. Once both Buffalo and Indian might have been developed to useful citizens; now, if we succeed in preserving either race, it will be only as captives. The kingdom of each is destroyed, and the people of this land are not blameless.”

“It’s a very sad story, and I’m afraid the left-over Buffaloes won’t like it very well even in the new Zoölogy Garden,” said Dodo, attacking the word bravely, but missing it. “Any sort of land with a fence around it must seem crampy for them. I’m very glad, anyhow, that I saw those at the circus.”

VII

WOLF!



"WILL you please choose one of the dog family?" asked Rap the next Saturday, when it was Nat's turn to select a picture for the story.

"Yes, I meant to choose this one—the Wolf," said Nat; "and the picture looks as if a story really belonged to it."

"A Trap' is printed on the picture," said Dodo, "but I don't see any trap, unless the Wolf is caught in one and can't move."

"Wrong, quite wrong, missy," said the Doctor, settling himself by the fire, after taking a couple of skins from those hanging about the walls and spreading them before him on the floor.

"Listen, and I will tell you the story of the great Gray Wolf, whose picture you have here, and also about his little barking brother, the Coyote."

"It is sure to be a good fierce story," said Dodo, "because Wolves gobble people, you know. When you lived far away, were you good friends with Wolves, uncle?"

"Our American Wolves are not man-eaters as some

of their Old World brothers are thought to be, but saying that I am a friend of Wolves and know all about them — that is quite a different matter.”

“A Wolf has no friends; he is hated by twofoots and fourfoots alike. As for *knowing* all about Wolves we may know some things and think we know others, but the comings and goings of a Wolf are as mysterious as the track of the wind itself. They move from place to place so suddenly and so swiftly that it would be easy to believe they flew on the storm, as witches were said to do on broomsticks.”

“Why do you say that some Wolves in other countries are *thought* to eat people — don’t you believe they do?” asked Nat.

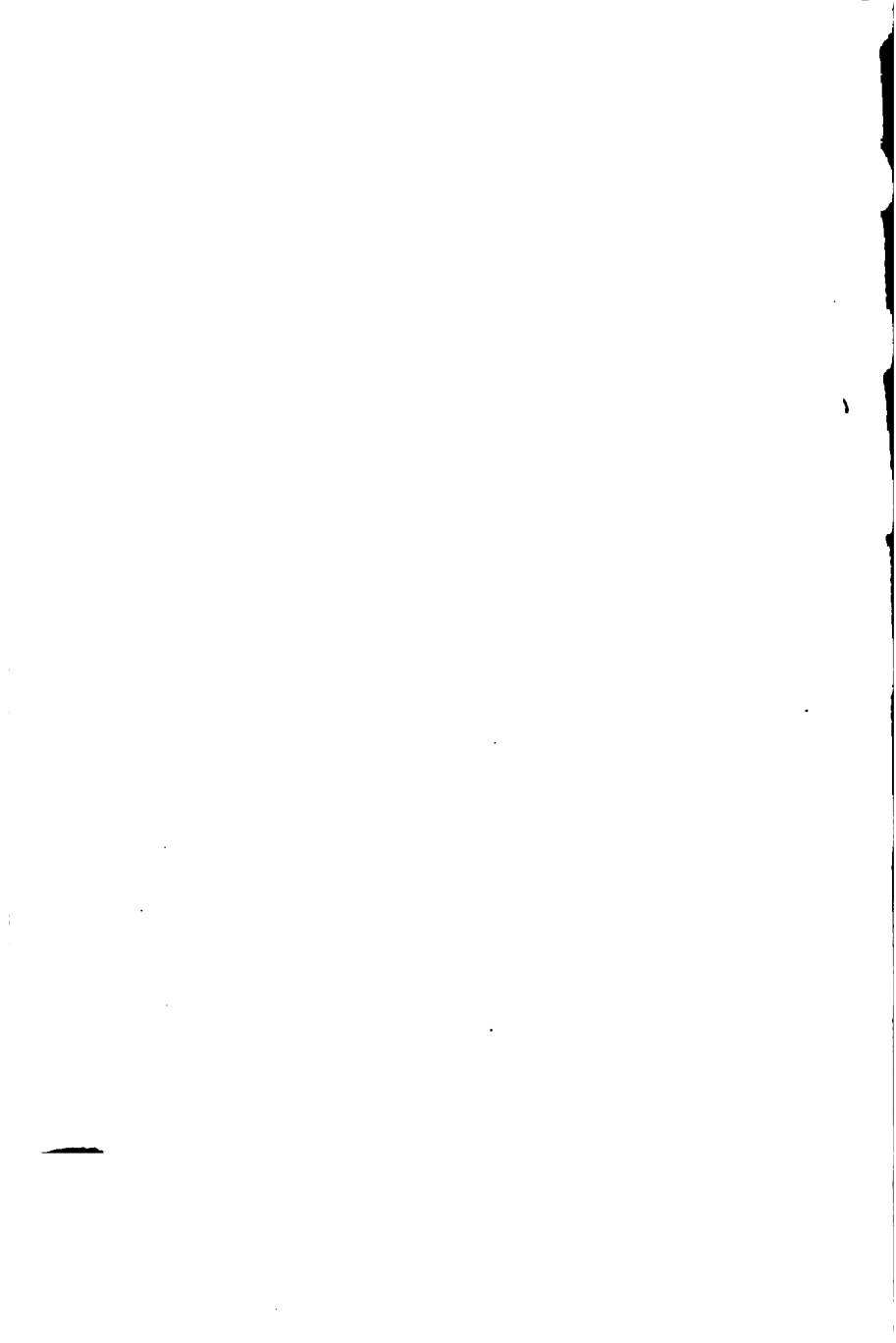
“They may sometimes, but it is best not to believe all that is *said* about animals; for there are a great many of what Rap calls ‘boast stories’ floating around, especially about Wolves. The Wolf is one of the easiest animals to see doubled and hear quadrupled. One may believe that a whole pack is outside the tent, bent on tearing you limb from limb, or swallowing you, sleeping blanket and all, when it is really only one mangy starveling, sniffing about for scraps of bacon or a bit of venison you have cached a little carelessly.”

“Cashed!” said Nat. “I thought cash was money. How could you make money out of meat, uncle?”

“Cached, with a *c*, means hidden. It’s a word that came from the French, round by way of the Canadian voyageurs. It is in common use in camp talk; a cache is a hiding-place. The Gray Squirrel, instead of *caching* his nuts all in one place as a Red Squirrel does, puts each one in a separate *cache*.”



TIMBER WOLF.



"Oh, yes, I can understand that," said Dodo.

"When the Squirrel goes to find a nut, he plays *câche-câche* then, for that is what French children call hide-and-seek," said Olive, laughing.

"Wolves all over the world bear very much the same character. The Wolf is an emblem of deceit and cunning. A Wolf, in the legend, ate Red Riding Hood's grandmother and tried to trick the child herself. When it is said of people, 'They have hard work to keep the Wolf from the door,' it means that want, or some trouble as cruel and cunning as a Wolf, is threatening them. The Gray Wolf, whose skin (the larger of the two) lies there on the floor, is, next to the Grizzly Bear, the most cruel and desperate of our fourfoots. Yet he is a coward; if he were not he would have given battle to the death to thousands of the pioneers who, as it was, struggled inch by inch in face of desperate dangers to settle this country. Why the Wolf is such a coward no one knows; but, fortunately, he is, or his race would not yet have been driven back until even the sight of a Wolf, except in a part of the West from Texas to North Dakota, is a great rarity."

"If this old Wolf skin could only tell what it knows, the story would not be a dull one. Look at it there, with its long bristling gray and black hair, brindled with traces of an under-color of yellowish brown at its base. The under-fur is soft brown, while on the belly both hair and fur are white. There is a bit of buff also about its face, ears, and flanks. See its black whiskers, the slantwise eye holes, pointed ears, and straight, bushy tail.

"The body and head are both long. This Wolf

must have been four feet and a half from nose tip to root of tail. Ah, yes, you handle the empty skin freely enough ; but give it life, let the strong white dog teeth snap in its jaws, the bright eyes gleam, and its long-drawn howl come from the black lips, and you would not stay near it long. If it only could speak ! ” said the Doctor, pausing and looking at the fire.

“ Wough-ow-ow owou-ough,” sounded a weird voice outside the door. “ Wough-oble-oble-oble-ough-o-u-gooow ! ”

“ Horrors, what is that ? ” cried Olive, startled from her usual calmness.

“ It’s Wolves ! ” screamed Nat and Rap.

“ A whole pack, but they’ve come for bacon scraps, they don’t want us,” shivered Dodo, trying to seem brave.

Even the Doctor was a little startled, but the suspense only lasted a moment. It was broken by a ringing laugh which, even before he came in, they all knew belonged to Mr. Blake.

“ Oh, daddy ! daddy ! ” said Dodo, “ I didn’t know ! How can you be such an intimate friend of Wolves that you could cry their cry, when uncle says they have no friends ? ”

“ I’m not sure that I am a friend of theirs either,” said Mr. Blake, throwing himself down on the wolf-skin rug ; “ but I’ve been among them where they live, and have heard their talk, and have seen their work.”

“ Tell them your story of this Wolf skin, then,” said the Doctor ; so after thinking for a few moments, Mr. Blake began : —

“ Every one knows the name of Wolf. This animal

is sometimes called Gray Wolf, and the Wise Men now say Timber Wolf; but the simple word *Wolf* stands for both cruelty and cunning. His family history, from the time the white men came to settle in this land, is full of dark deeds and darker punishments. The Indians repeat many tales about him, and tell how that long ago the Wolf ate of the meat of knowledge. This meat was the flesh of the great wide-eared, hornless Deer who is no longer living, but who was so wise in his day that he taught the winds how to blow. Whoever among the fourfoots should take one of these Deer by fair hunting, and eat its flesh, won great wisdom for his race, with keen eyes to read hidden sign languages and a nose to scent every message of the wind.

“The Bear only licked a bit of this magical meat; this brought it cunning and stupidity. The Fox, being too small to hunt it, nibbled at a piece he did not kill; this gave him cunning, together with the penalty that he should be hunted by the beasts of his own tribe. The Puma seized a piece of flesh another beast had hidden, and so was given cunning and a sure, swift leap, but heavy paws that weigh in running. Then a Wolf slew the last wing-eared Deer of all, not by fair chase, but by trap and treachery, so that the Deer in dying branded the Wolf a coward.

“‘Hunt and be ever hunted,’ he shrieked. ‘Hunt with hanging head and tail; hunt treacherously with wile and snare, for you will have great need of cunning. An enemy comes from far across the seas, who walks upright as Bears walk, having a moon-white face, in one hand carrying fire, and in the other the fine white

earth that kills,¹ and he shall likewise devise magic wands to spring and hold you fast.

“You will wage war together, this man and you, but he will conquer. And as a punishment for your way of killing me, you shall fear to kill him, for your real name is Coward !”

“So after many years the white men came from over seas and settled, though at first there were but few, and the Wolves still roamed at will about the country—from the land where the snow never melts, down through the woods and plains to where the Rio Grande runs slantwise through the country and the prickly Peccaries and cacti live. The northern Wolves were large and grizzly ; but those in the hot south were smaller and had thinner fur. Wolves wore handsome robes in those days, and had as many names as Bobolinks. They were called White Wolves and Black in the northwest, Red Wolves in the cactus country, and Gray Wolves everywhere.

“There were some smaller Wolves, who were less savage and less swift of foot than their brothers, more doglike and talkative, who babbled the secrets of the tribe and liked to hang about the homes of House People, rather than live in woods or caves. The larger Wolves disliked them, because they were afraid lest they should tell tribe secrets ; so they turned these small ones out to be a tribe apart, to feed on meaner game, and snatch and steal in open places.

“These small Wolves were given charge over sheep, Jack Rabbits, and such timid things, and men called them Coyotes (ground burrowers). But the Coyote is

¹ Strychnine.

also a cunning huntsman, and lays his own traps and chases Antelope on the plains ; yet to-day there is hatred between the two tribes, and, if a hungry Timber Wolf meets his little brother, he will often eat him !

“Look at that Coyote skin on the settle; you can see it is of a finer texture than this Gray Wolf robe. It is softly furred, a dark ripple running from head to tail and across the brindled shoulders, it has white lips, a rusty face, and a black tip to the tail, and measures a full tail length shorter than this Gray Wolf’s pelt. The Coyote is little more than a vagabond wild dog, who barks and howls around the edges of settlements, licking his lips when a lamb bleats or a cock crows.

“When the Buffalo herds blackened the plains, the Gray Wolves lived by following them, snatching the calves or killing the wounded and feeble old ones. Then great bands of Deer, Elk, Antelope, furnished them with food at all seasons ; for Wolves with their spreading feet could follow these heavy, sharp-hoofed beasts over the deep snow, through which they sank, and, spent and overcome, soon became the Wolves’ prey.

“As the country was settled, the Wolves crept back ; for whether the Indian’s tale was true or not, a spell seemed to prevent their killing men. Gun, trap, and poison were all turned at the Wolves, who were also chased with dogs ; but still they worked mischief among horses, flocks, and herds, and still the cry among the frontiersmen was ‘Wolf ! Wolf ! how shall we destroy him ?’

“Wolves have another fault besides sneak hunting, they break Nature’s law, ‘Take what ye need to eat,’

and kill in times of plenty as if for the mere greed of killing, snatching a bite here, a fragment there, then wasting all the rest. They also have one virtue, which is common enough among the birds, but rare in fourfoots, — they love their mates; and a friend of mine who knows Wolves as well as we know people, tells a story of the fiercest, slyest Wolf of all the southwest, who, in despair at having lost his mate, rushed headlong into a trap.

“The home life of the Wolf is very short. His house is only a hole under some roots, or a sheltering cave, which covers half a dozen little woolly puppies in the late spring. Then the Wolves are happy, for it is the season when the Deer are fattening on the young grass and wear soft new horns. From this time follows six months of good living, then half a year that is a war with famine. Wolves do not sleep the lazy winter sleep like Bears, but hunt in packs, plotting to make a living like human thieves. If it had not been that long ago they ate the meat of knowledge, they would be gone and no one would understand the cry of Wolf! As it is, there are still many of them in the northwest grazing country, and they increase here and there mysteriously from Texas to North Dakota even if men continually hunt and harry them and Deer are few; for if bread fails them, they relish cake, by which I mean to say that, if they can't find venison, they are quite content with veal and mutton.

“All fourfoots understand the speech of scent, more or less, but Wolves certainly are wise with uncommon wisdom and have a wonderful sign and scent language. If one of the tribe dies of poison, the others will not eat

food scraps in that place. Does a Wolf of some other tribe run by, driven by fear; he may not be even seen, but he writes in his track and stopping-places the message that he wishes other Wolves to know. Every hair that bristles on a Wolf's back has its own meaning.

"Now listen to the story of this Wolf, whose skin is on the floor. He and his mate hunted together, often dashing at a horse or Deer, tearing its running sinews from behind, with their sharp teeth, or sometimes picking up a calf that ran beside its mother, always having good eating. Often they would find a Deer's trail, running from its day cover to a spring, or to its dainty wood pasturage. The Wolves did not wish to run together openly, for Deer are very swift, and would lead them a weary race, so they would sniff the night wind and get before it so that it might not tell their doings to the Deer. The wind is fickle, an enemy to all hunters, always carrying along the latest gossip. Then one wolf would lie hidden by the runway, while his mate would show herself openly, and drive the Deer, at first gently, then fiercely, until it would run blindly in a circle (a habit of the family) to its first cover, past the very spot where the other Wolf lay like a living trap; one spring brought down the Deer and then the pair feasted at leisure."

"Oh, then that is what 'A Trap' means on this picture. The Wolf was a trap for the Deer," said Dodo. "But how did the Wolf come to die and be made into this rug?"

"Bad days came soon after to the pair. The she-wolf vanished, House People cleared the timber from

that place and shot most of the Deer to feed themselves. The next winter was bitter cold, and yet the snow was not deep enough for our Wolf to chase and overcome what Deer remained. So he prowled too recklessly about a camp, and one night stepped into a trap that gripped his leg, that hind leg that you see now wears no foot. The Wolf struggled in vain to pull himself away, and then with awful bites gnawed himself free, leaving his foot fast in the trap.

"Soon he grew hungrier and hungrier; he could find no food. Then, being desperate, he said, 'I would even kill a man!'

"Early the next night he stole down to the camping place, but he found no one there, and the campfire was nearly out. Wolves do not like fire — and he thought, 'Surely this is my chance, perhaps they have left some food,' so he stalked in as boldly as his mangled leg allowed. Then he stopped, for he scented man! Soon he went on again, for stretched in the corner lay a bundle in a blanket, — a man, but hurt and helpless.

"The signs said, 'This man went out hunting with his friends, he lost their track, he fell and broke his leg, his gun is buried in the snow, he crawled back alone to shelter.' Then again the signs whispered to the Wolf as he hesitated, 'Kill him! He is yours. He set the trap that robbed you of your foot.'

"The Wolf growled defiantly and crouched beside the bundle, waiting until it should give some sign of life to give the rending bite. The bundle moved and raised itself, fixing its eyes upon the Wolf, look for look!

"The Wolf glared, but saw in those two human eyes a light that never is in the eyes of beasts. His breath

blew coldly back to him, he shivered, for in his heart he was a coward. He longed to bite, and yet he did not dare.

“The sleeping fire outside, that marked the camp, shot out a flaming tongue. The Wolf started, crouched, fearing to pass it. Then scenting on the wind that other men were coming, he slunk out and, not stopping to read the signs, seized a lump of meat, bolted it, and ran until he reached the wood edge.

“The tramp of many feet bent the ice crust, hurried words came from the camp, mingled with the cry of Wolf! and the crash of logs. The fire leaped high. Fire also burned within the Wolf; then came the end — the scrap of meat that he had swallowed held the fine white earth that kills!”

VIII

UNDER THE POLAR STAR



UCH wind and threatening weather, then two days of falling snow that buried the fences, and at last the northwest wind sent the clouds scurrying, and bright sunshine returned with the day before Christmas.

"It is like the pictures in a fairy story; do look at the trees and the top of the rose arbor!" said Dodo that Friday morning, as she rubbed a peep-hole in the frost on the dining-room window. "Rod is breaking the road up the hill, and all you can see is the top of his head, and Tom and Jerry step in up to where their blankets are strapped. It's lucky we had the Christmas tree cut down and waiting in the shed before the snow came."

"It isn't in the shed," said Nat, mischievously, coming in with dancing eyes and a very red, cold nose, the only parts of his face that could be seen between his muffler and cap brim.

"Oh, where is it?" wailed Dodo. "Do you think

any one has stolen it — was there any trail in the snow ? ”

“ Yes, some one has dragged the tree out ; I saw the footprints and marks of the branches ! ”

“ Do let’s go and tell Uncle Roy, or it will be too late to cut another.”

“ Nat is teasing you,” said Olive. “ Father and Uncle Jack are the thieves, for I see them dragging the tree round to the camp now.”

Bang ! went the door, and the dining room was empty.

* * * * *

The tree touched the ceiling and was fastened to a beam with wire to keep the top steady, while the stand that held it was so prettily covered with moss and pine needles that it looked quite like the ground where the spruce grew. Pine knots would have been the proper lights for a camp Christmas tree, but Dr. Roy was so afraid of setting the old dry beams afire, that he objected even to candles, and so Mr. Blake had sent to the city for a number of tiny electric lights that would twinkle in safety.

Nat and Dodo helped twine the beams with evergreens and hang the decorations on the tree, but no more. They would not for worlds have peeped at even the corner of a present, they were so fond of being surprised. In spite of the temptation to go outdoors, they were too much excited to care for making snow houses, or throwing snowballs, and kept in a perfect fidget until three o’clock, the hour when Rod was to take the big sleigh to the depot to meet the party from the mountain.

* * * * *

"They are coming, they are almost at the corner, for I can hear the bells!" cried Dodo. "Now they've stopped!"

"They are waiting for Rap and his mother, you know the sleigh was to call for them. Here they are!" shouted Nat, dashing down to the gate,—"that is, all but Toinette!"

Sure enough she had not come. "Got bashful at the last minit," said Nez; "allowed she'd better stay home and keep house along with her brother who's winterin' with us, but they're goin' over to the Ridge to-morrer to keep Christmas Canady style with some country folks o' theirn. Reckon they'll see their Christmas candles in church!"

This was a very long speech for Nez, and he immediately retired to the barn with Rod, looking as if he was afraid of a real house with carpets and curtains.

Olaf took some oddly shaped parcels from the bottom of the sleigh and carried them to the stoop, driving Phonse and Dominique in front of him like a pair of balky geese; but they soon felt at home and began to talk when they had been introduced to the dogs and saw Mammy Bun preparing supper.

"I think those long bundles look as if they *might* hold show-shoes," said Nat to Olive; "but what is in that green bag, I wonder?"

"I have brought my fiddle," said Olaf, as if in answer to Nat's question. "Your father said to me: 'Olaf, I have a banjo; bring your fiddle and we will make music together.'"

Olaf often spoke slowly, as if he thought in his own

tongue and turned the words to English as he said them, yet always using good language.

The children began the entertainment of their guests by showing them everything on the farm, from Sausage up, and had only half explained the wonder room when the bell rang for tea.

"The little boys have brought funny knit nighties and nightcaps with red tassels," whispered Nat to Dodo, as he returned from showing the Brownies — as Olive called them — their room and had helped unwind some of their wrappings.

Supper was a rather mixed, but very merry, meal. Olive had difficulty in keeping Dodo from asking the Brownies why they preferred fingers to forks, while Mr. Wolf and Quick saw instantly that something unusual was in the air and roved about the table trying to snatch scraps, something that they had never before dreamed of doing. But then if Christmas comes but once a year, having a party of two Brownies, a real live woodsman, and a Fin who knows a Dream Fox, is rarer yet.

The men went out in the clear starlight for a breath of air and to smoke their pipes. Rap's mother helped Mammy Bun in washing dishes and making the kitchen neat, so that by eight o'clock everything was in order for the march upon Camp Saturday.

"Isn't it nice?" said Dodo to the Brownies; "eight o'clock is go-to-bed-time on common nights, but Christmas eve it is the very beginning, for daddy says we may stay up until ten!"

The Brownies, however, did not understand much about time, for they usually went to bed whenever it

grew dark. While they all stood waiting for the sign to be given for opening the camp door, a scream came from Mammy Bun, who was already inside.

"For de lan' sakes, Massa Doctor, come hyar right smart! Billy Coon, he am in der tree eatin' eberyting! I tink he hab bit one o' dem fancy light's, shor' nuff!"

The waiting procession immediately stampeded. Fortunately the tree was fastened at the top, or Billy's fat body would have overturned it and wrought dire mischief. As it was, he had only eaten a few lady apples and a candy cane, so he was driven into a far corner, where he sat devouring a string of popcorn that caught round his neck, for the Brownies were delighted to see their old friend, and the children all begged that he might not be banished.

The tree lights twinkled in earnest, and made such a blaze that the Brownies blinked, and an hour was spent in exploring the branches of the tree after the ground had been gleaned of the larger gifts. If this was not a story of fourfoots, I would tell you all about the presents,—the names of the bicycles that Olive, Nat, and Dodo received, of Rap's bird book, Mrs. Blake's soft sealskin jacket, the Brownies' toys, Olaf's carved pipe, and Nez' knife that had a blade for everything and one extra. I must not even whisper about these things, except to say that the snow-shoes were there; but hurry to the story that Olaf told as he gazed from the tree to the campfire, listening now and then, as if his words came from the wind outside.

"Who shall choose the pictures to-night?" asked Olive. "It is Dodo's turn to-morrow, but this is an extra evening."

"Let Olaf choose for himself," said the Doctor. "He has a story in mind and knows what he needs to illustrate it."

Olaf took six pictures from the portfolio; the first three were of a Polar Bear, a Caribou, and the Musk Ox, a shaggy, brown beast with drooping horns, that looked half sheep and half Buffalo. The other three were of Sea Lions, Seals, and a Walrus.

"They are all strange, far-away, cold country animals," said Rap; "just the right sort for a winter story."

"Mine is a tale of ice and snow, long nights and short days, of a country whose north border sleeps in the twilight a third of the year, — if it were not so the people would be sightless from the snow blindness, — a land of hunger and cold, of sore famine, and then brutal hunting. We may call this place Fur Land, and it lies under the Polar star and is the place where the white Bear rug and sealskin jacket are at home."

"Please, Olaf," interrupted Dodo, "if you know about this far-away, cold country, can you tell if the Reindeer that Santa Claus drove have any American cousins, and why children never see him driving over the roofs or coming down the chimneys any more?"

"Yes," said Olaf, hesitating a moment; "those Reindeer have cousins living with us. They are called the Caribou, and grow of two varieties, — one short-legged and stunted, that tracks the treeless Barren Grounds, and the other here pictured, the Woodland Caribou. But 'why do children no longer see the good Santa Claus?' That question has a sad, sad answer, coming from unfair hunting, which drives so many fine things

out of this land. Think you Saint Nicholas will bring his magic Deer here for men to shoot with their long-reaching guns? He knows their cruel hearts too well, and keeps away so that no man, pointing to a row of antlers over his chimney-piece, may say, 'Those are



WOODLAND CARIBOU.

the horns of Santa Claus' Reindeer; I myself shot them *all* with a single bullet!'

"Come then, whistle to our Woodland Caribou to take us to this Fur Land, but do not be impatient; he has far to journey to us.

"He has his home in the woods, upon our northern borders and on into the British Kingdom, as far as trees

grow to give him shelter. In summer he loves cool marshes, where he feeds on plant roots and fresh tree buds; in winter he journeys to high ground and paws the snow away to find grass, moss, or lichens, so he is always restless, moving about more than his stunted brother of the Barren Grounds, and we must often look far and wide to find him. Ah, he is a fourfoot built to stand the cold, and shod for snow striding! Look at his picture. See the strange antlers, both palmed and tined, branching downward as gnarled old trees, no two pairs growing quite alike. Even the female Caribou, or, as she is called in this tribe, the cow, wears small, spiked horns. See his long, stout hair that makes a thatch like straw to keep the wet and cold out of his undercoat. He is not pretty, this Caribou; ah, no! his face and neck look faded, and he is at best a dingy sort of brown with a lighter colored rump. His tail is lined with white, and, when raised, becomes his signal flag of danger. See the foot gear he wears; is it not wonderful? Two hoofed, spreading toes, curved inward, with two more behind, all edged with stiff hairs. When he plants his feet his hind legs bend toward the ground, making long snow-shoes such as no other deer wears. The palm-horned Moose, the largest of our deer, sinks in the snow, and after much running, falls exhausted. The Elk, the king of all his tribe, has small, sharp-edged hoofs; but this, the third from the largest, the awkward Caribou, wears such snow-shoes that, if he were tamed and trained, he too, like his Reindeer cousin, would be a useful beast of burden in our bleak, north country.

“He does not come; whistling will not bring him;

we must go without him, for we cannot wait. Perhaps, as he sheds his great antlers near Christmas time, he feels shy and helpless. I will call the 'Day-Dream Fox' to guide us. Look well at the map while we are travelling open eyed, for he leads the mind in minutes, where it would take the feet long months to follow.

"Go up through our plains to the British countries, where the great company of Hudson's Bay catches fur for half the world, and the Beaver, Otter, Sable, Mink, Wolverine, and Silver Fox still flourish,—on across Assiniboia and Saskatchewan. See, we find the names of fourfoots everywhere: Bear Lake and Reindeer Lake, while curving from the Rockies toward Hudson's Bay we cross the Caribou Mountains."

"Did you learn American geography when you went to school 'way up in Finland?" asked Dodo, "or did you learn it by walking over the country?"

"I learned a little even then, and much more afterward, and I have lived in this North Country for three years. Beyond the Caribou Mountains we come to Great Slave Lake, and from there up to the water's edge we are in the Barren Grounds. Barren of trees, of everything but fiercest Wolves, the White Fox, Musk Ox, Caribou, and a few grim Bears who wear changed faces from their grizzly mountain brothers, through living in this bare wilderness. This place is like a battle ground, where Wolf kills Ox, Caribou, and Fox, while the Indian, when he ventures up so far, kills all these in turn.

"There I can fancy the Musk Oxen standing in a herd of twenty or more, packed closely for defence, frightened by scent of blood, as if wild dogs or Wolves



MUSK OX.

we must go without him, for we cannot wait. Perhaps, as he sheds his great antlers near Christmas time, he feels shy and helpless. I will call the 'Day-Dream Fox' to guide us. Look well at the map while we are travelling open eyed, for he leads the mind in minutes, where it would take the feet long months to follow.

"Go up through our plains to the British countries, where the great company of Hudson's Bay catches fur for half the world, and the Beaver, Otter, Sable, Mink, Wolverine, and Silver Fox still flourish,—on across Assiniboia and Saskatchewan. See, we find the names of fourfoots everywhere: Bear Lake and Reindeer Lake, while curving from the Rockies toward Hudson's Bay we cross the Caribou Mountains."

"Did you learn American geography when you went to school 'way up in Finland?" asked Dodo, "or did you learn it by walking over the country?"

"I learned a little even then, and much more afterward, and I have lived in this North Country for three years. Beyond the Caribou Mountains we come to Great Slave Lake, and from there up to the water's edge we are in the Barren Grounds. Barren of trees, of everything but fiercest Wolves, the White Fox, Musk Ox, Caribou, and a few grim Bears who wear changed faces from their grizzly mountain brothers, through living in this bare wilderness. This place is like a battle ground, where Wolf kills Ox, Caribou, and Fox, while the Indian, when he ventures up so far, kills all these in turn.

"There I can fancy the Musk Oxen standing in a herd of twenty or more, just as they are, frightened by scent of a single Wolf."



MUSK OX.

we must go without him, for we cannot wait. Perhaps, as he sheds his great antlers near Christmas time, he feels shy and helpless. I will call the 'Day-Dream Fox' to guide us. Look well at the map while we are travelling open eyed, for he leads the mind in minutes, where it would take the feet long months to follow.

"Go up through our plains to the British countries, where the great company of Hudson's Bay catches fur for half the world, and the Beaver, Otter, Sable, Mink, Wolverine, and Silver Fox still flourish,—on across Assiniboia and Saskatchewan. See, we find the names of fourfoots everywhere: Bear Lake and Reindeer Lake, while curving from the Rockies toward Hudson's Bay we cross the Caribou Mountains."

"Did you learn American geography when you went to school 'way up in Finland?" asked Dodo, "or did you learn it by walking over the country?"

"I learned a little even then, and much more afterward, and I have lived in this North Country for three years. Beyond the Caribou Mountains we come to Great Slave Lake, and from there up to the water's edge we are in the Barren Grounds. Barren of trees, of everything but fiercest Wolves, the White Fox, Musk Ox, Caribou, and a few grim Bears who wear changed faces from their grizzly mountain brothers, through living in this bare wilderness. This place is like a battle ground, where Wolf kills Ox, Caribou, and Fox, while the Indian, when he ventures up so far, kills all these in turn.

"There I can fancy the Musk Oxen standing in a herd of twenty or more, packed closely for defence, frightened by scent of blood, as if wild dogs or Wolves



Musk Ox.

we must go without him, for we cannot wait. Perhaps, as he sheds his great antlers near Christmas time, he feels shy and helpless. I will call the 'Day-Dream Fox' to guide us. Look well at the map while we are travelling open eyed, for he leads the mind in minutes, where it would take the feet long months to follow.

"Go up through our plains to the British countries, where the great company of Hudson's Bay catches fur for half the world, and the Beaver, Otter, Sable, Mink, Wolverine, and Silver Fox still flourish,—on across Assiniboia and Saskatchewan. See, we find the names of fourfoots everywhere: Bear Lake and Reindeer Lake, while curving from the Rockies toward Hudson's Bay we cross the Caribou Mountains."

"Did you learn American geography when you went to school 'way up in Finland?" asked Dodo, "or did you learn it by walking over the country?"

"I learned a little even then, and much more afterward, and I have lived in this North Country for three years. Beyond the Caribou Mountains we come to Great Slave Lake, and from there up to the water's edge we are in the Barren Grounds. Barren of trees, of everything but fiercest Wolves, the White Fox, Musk Ox, Caribou, and a few grim Bears who wear changed faces from their grizzly mountain brothers, through living in this bare wilderness. This place is like a battle ground, where Wolf kills Ox, Caribou, and Fox, while the Indian, when he ventures up so far, kills all these in turn.

"There I can fancy the Musk Oxen standing in a herd of twenty or more, packed closely for defence, frightened by scent of blood, as if wild dogs or Wolves



Musk Ox.

we must go without him, for we cannot wait. Perhaps, as he sheds his great antlers near Christmas time, he feels shy and helpless. I will call the 'Day-Dream Fox' to guide us. Look well at the map while we are travelling open eyed, for he leads the mind in minutes, where it would take the feet long months to follow.

"Go up through our plains to the British countries, where the great company of Hudson's Bay catches fur for half the world, and the Beaver, Otter, Sable, Mink, Wolverine, and Silver Fox still flourish,—on across Assiniboia and Saskatchewan. See, we find the names of fourfoots everywhere: Bear Lake and Reindeer Lake, while curving from the Rockies toward Hudson's Bay we cross the Caribou Mountains."

"Did you learn American geography when you went to school 'way up in Finland?" asked Dodo, "or did you learn it by walking over the country?"

"I learned a little even then, and much more afterward, and I have lived in this North Country for three years. Beyond the Caribou Mountains we come to Great Slave Lake, and from there up to the water's edge we are in the Barren Grounds. Barren of trees, of everything but fiercest Wolves, the White Fox, Musk Ox, Caribou, and a few grim Bears who wear changed faces from their grizzly mountain brothers, through living in this bare wilderness. This place is like a battle ground, where Wolf kills Ox, Caribou, and Fox, while the Indian, when he ventures up so far, kills all these in turn.

"There I can fancy the Musk Oxen standing in a herd of twenty or more, packed closely for defence, frightened by scent of blood, as if wild dogs or Wolves



Musk Ox.

we must go without him, for we cannot wait. Perhaps, as he sheds his great antlers near Christmas time, he feels shy and helpless. I will call the 'Day-Dream Fox' to guide us. Look well at the map while we are travelling open eyed, for he leads the mind in minutes, where it would take the feet long months to follow.

"Go up through our plains to the British countries, where the great company of Hudson's Bay catches fur for half the world, and the Beaver, Otter, Sable, Mink, Wolverine, and Silver Fox still flourish,—on across Assiniboia and Saskatchewan. See, we find the names of fourfoots everywhere: Bear Lake and Reindeer Lake, while curving from the Rockies toward Hudson's Bay we cross the Caribou Mountains."

"Did you learn American geography when you went to school 'way up in Finland?" asked Dodo, "or did you learn it by walking over the country?"

"I learned a little even then, and much more afterward, and I have lived in this North Country for three years. Beyond the Caribou Mountains we come to Great Slave Lake, and from there up to the water's edge we are in the Barren Grounds. Barren of trees, of everything but fiercest Wolves, the White Fox, Musk Ox, Caribou, and a few grim Bears who wear changed faces from their grizzly mountain brothers, through living in this bare wilderness. This place is like a battle ground, where Wolf kills Ox, Caribou, and Fox, while the Indian, when he ventures up so far, kills all these in turn.

"There I can fancy the Musk Oxen standing in a herd of twenty or more, packed closely for defence, frightened by scent of blood, as if wild dogs or Wolves



Musk Ox.

surrounded them. If it were spring, I should know that the young calves were there inside the protecting ring. What are they watching? One of their herd in terror sniffs and paws the ground where a Wolf has dragged some bleeding meat, like the ox in our picture. This beast, though called an ox, is really more like a great sheep, measuring over four feet at the shoulders."

"How is it more like a sheep?" asked Nat.

"The Wise Men say that its teeth are like a sheep's, and its feet like those of an ox," said Dr. Roy, to help Olaf, who knew what he had seen, but not so much about the bones and building material of animals. "He has, you see, an ox's nose, but his horns curve strangely downward. His brown robe is longer and thicker than the coat of any other of our fourfoots, quite covering his short sheep's tail. The hairy coat is almost two feet long, while underneath, packed closely to the body, is a fleece blanket that falls away in summer."

"I see his funny, turned-in, hairy, snow-shoe toes, and he has a bit of a Buffalo's hump," said Dodo, after looking at the picture. "How queer it is to find that such strange beasts belong in our America!"

"Yes," said Dr. Roy, "and, what is more, with the exception of Greenland they live nowhere else but in North America."

"Does the Musk Ox make good meat, like the Buffalo?" asked Rap.

"Oh, no, very poor meat, coarse and tough, with the rank flavor of musk that gives this ox its name. Only Wolves and starving Indians care to eat it. The skin is tough and serviceable enough if you can get it off without tearing.

"What does the Musk Ox eat?" asked Nat.

"Moss, wiry grass, and lichens, a scanty living dug from beneath the snow with the hooked horns, or scraped up with the hoofs that do double service in digging and helping the ox climb rocks, and also to run swiftly over slippery ground. The cud-chewers fare poorly in the Northlands. Where the prowling flesh-eaters can feed upon each other, the grass-eaters often go hungry, and all the beasts of the Barren Grounds are flesh-eaters, save the Caribou and Musk Ox.

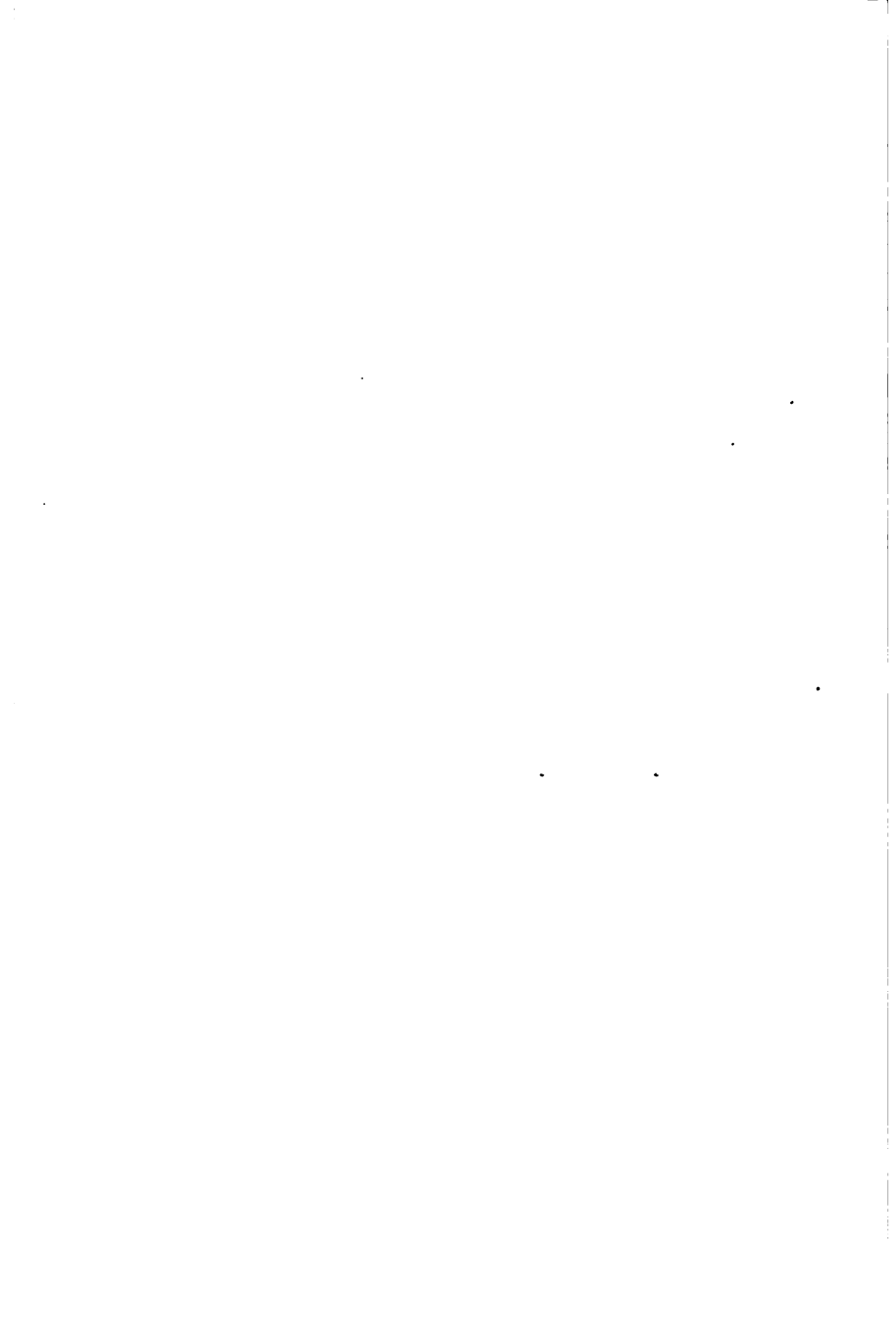
"Now we go further north and reach frozen sea edges. Round these ice-clad borders prowl the Polar Bears, following the ice downward as it creeps to open sea in winter, and going north again in summer, seldom coming twoscore miles inland, like the coast-loving Eskimo himself.

"What is he made of, this great, clumsy, half-ton mass of flesh, clothed in thick, yellow-white fur from nose tip to point of claws? Clothéd? — no; padded is the better word, for his long neck and small head grow from a rolling bale of fur on legs. This White Bear sleeps on ice and soaks in ice water, never dreaming of the cold. Can he be warm-blooded flesh? But yes, he is. The she Bears bring forth their young in icy caves and harden their cubs to swim with them in icy seas, and to follow their parents while they track and hunt down their Seal and Walrus meat, or shuffle along the shores to feed upon dead Whales.

"A great hunter is this Bear, quick of tooth and claw; he stalks the Seals as men do, stealing behind them when they come upon land, seizing them when they turn to hide in their water-holes. Over all the



POLAR BEAR AND SEAL.



lands and seas of ice this Bear is king of fourfoots. Of man, too, he *was* king, when man meant only the Eskimo armed with a knife and spear. Then Bear hunting was dangerous indeed,—blow for blow, tooth against knife-blade, arm of muscle tipped with long claws against brittle harpoon. Now a long-range rifle, keen eyes, and a steady hand, have turned the peril from man to Bear, and soon the great hungry beasts will have left the Arctic twilight as the Bison left the prairie. Snow may be her bed, but the she Bear's heart beats warm and lovingly for her cubs, — or rather cub, for she usually has but one, — and she will let herself be killed before man or beast may touch it.

“Tramp, tramp, tramp, go the Bear's feet through the snow, leaving the even-planted print of heel and toe, as a man's foot does. Now follow them round Hudson's Bay, across the north coast, turning southward down Alaska. Then crossing Behring Strait, go on to where ice floes go through the chains and dots of islands to the Pribilofs, where in summer there are no nights and in winter moonlight is daylight, the islands where the sealskin jacket lived when it was at home, for I can guess that this jacket was once the covering of three bachelor Seals!”

IX

A SEALSKIN JACKET AT HOME



Now leave dry land, though when one follows the Polar Bear over the caked ice, who can tell if it is earth, rock, or frozen water that lies underneath.

“The tribe of fin-footed watermen (*Pinnipeds*) live on the frozen sea edges and islands from Labrador around the north coast to the Pacific Ocean. The Polar Bear spends the chief part of his time on the land, going in fishing and swimming for pleasure; but these watermen pass most of their time in the water where their food is, floating with drifting ice floes, and hauling up on the islands to rest for a time in summer when their cubs are born.”

“Why do you say hauling up?” asked Nat. “Haven’t these beasts legs, and can’t they walk? In my spelling book it says haul means to pull or drag.”

“It says rightly,” answered Olaf, “for these beasts drag themselves when on land, and their legs are not as the limbs of Deer or Bear, but flippers set deep in the flesh, shaped half like the fins of a fish. To see them it seems impossible that they should move at all, either

in water or on land. Four kinds of these fin-footed ones I know, for two of my three cold northern years I lived where they are killed. Pah! it was a cruel country, reeking with smells, and mine was a loathsome living.

"These four watermen are named the Walrus, the Sea Lion, the Sea Bear or Fur Seal, and the Harbor Seal. Of these the Walrus is king, if size and ancient name make royalty. Back in the legends of my country this 'Whale Horse,' as he was called, of the Atlantic coast is pictured, and one was taken to good King Alfred's court by Othere, the Viking. What they thought of it I do not know, but those were the days when men believed the sea peopled with monsters and saw mermaids riding on the waves, and fashioned the Unicorn upon their shields from memory of that spike-nosed Whale, the Narwhal, that they had doubtless seen stranded upon some northern beach. But no dream beast could match the Walrus in homeliness.

"Look at the picture of this lump of fat, flesh, and bones — it is the giant of the coast, those on the Pacific shore growing larger than their Atlantic brothers. Is he not monstrously ugly? Twelve feet and more from nose to rump, twelve feet and more in girth. The huge wrinkled neck supporting a small head with small eyes and two long tusk teeth, while the rough whiskers on the snout look like seaweeds clinging to a water-mossed rock. What has the beast to help him either swim or walk? Four limbs so deeply sunk in flesh and skin that you see only five-fingered hands, wearing skin mittens. These serve well for paddles, and their owner can rest almost upright in the water, floating easily, for

all about his chest and neck are layers of oily fat or blubber, which make a life raft of him, while his thick, tough hide, scarred with wounds from rocks, harpoons, Bears' claws, and the tusks of rivals, keeps him from growing water soaked and chilly. He is warm blooded, and yet able to stay under water half an hour at a time without coming up to breathe.

"How does he feed this great body of his, and lay up the layers of fat that draw his hide in creases like seams in rocks? By digging clams and water roots, scraping mussels and other shell-fish from the kelp beds with his tusks, and he also uses these tusks as hooks to help in pulling himself over the rocks and shoals of the summer breeding-grounds."

"Why doesn't he eat seaweed?" said Dodo. "I should think it would be a great deal of trouble to open clams enough to feed such a 'mense thing!"

"All of this tribe of *Pinnipeds*, as the Wise Men call them, live chiefly on animal food," said the Doctor, "their teeth showing them to be flesh eating or *car-niv-o-rous*, but Olaf will tell you that they do not stop to open the clams—they are not so dainty in their fishing as the Crows!"

"No, they swallow them by the bushel, shells and all," continued Olaf. "If it hurts them or not, who can say, for they tell no one their secrets, but it may be that they are complaining when they cry and roar, as they do at all times of the year, with a growling honk that might be the call of a wild goose goblin. Sometimes in the spring and early summer, the season of cool fog on the northwest breeding islands, I have stood on a cliff and could not tell by sight alone if it



ATLANTIC WALRUS.

was ocean all about me — then I would hear their honk below, different in key from the roar of the Sea Lion.”

“Aren’t they awfully fierce beasts to meet?” asked Rap.

“They *look* fierce, and when killed with spear or harpoon may give the whaler or Eskimo some scars or crush him by rolling their ton weight on him, in their terror to get back from land to sea. But that is all, and how can such a piece of clumsiness long escape extermination if he is hunted persistently with the rifle?”

“Are they good for much?” asked Nat. “Of course you couldn’t use that ugly skin to make fur coats, and daddy says that the oil from wells in the ground is easier to get nowadays than animal oil.”

“*We* could do without them well enough, but they mean food and clothes, heat, light, and life itself to the poor Eskimos. Even *with* the Walrus, life to them is not easy; without him it means awful, slow starvation. Listen to what the Walrus gives. First of all, his coarse meat is the Eskimos’ beef, their only change from fish, for many of them live out of the range of Bear meat and dare not venture through the Barren Grounds for the Musk Ox. Walrus meat is eaten fresh and also packed away as food, for all the year. Its oil gives him light and fuel also in that treeless land.”

“Oh, then the Eskimos have oil stoves, the same as we do!” cried Dodo. “I wonder if they make the choky, smoky smell that the one does in daddy’s dressing room?”

“They burn the oil without the stove, and the smoky smell is very, very large,” said Olaf, spreading his

hands wide apart and wrinkling his face as if he remembered a very bad smell. "Next to the oil in value, comes the hide. When it is stretched and well dried it makes a fine cover for boats, that is stronger to stand the sharp-edged ice than any wood could be; the hide also serves to make harness for the Eskimo's sledge dogs. The strong sinews of the back make thongs for bird and fish nets, boot laces, and thread for sewing boat covers and clothes. The gullet or throat is used for boot legs, with the flipper bottoms fitted on for soles. The intestines, which are perhaps sixty feet long, are cut in strips, and when stretched and dried are sewn together to make the waterproof clothing that these people wear in their fishing and hunting."

"Oh, dear, how much the poor Eskimo women must have to sew!" murmured Dodo, "and what long seams; I've seen Mammy Bun take those wormy looking insides out of a chicken, and even they were ever so long!"

"The tusks, though of a poor quality of ivory, serve many purposes, not the least of them being to trade away for such iron and steel articles as the Eskimo needs but cannot make. Now you can well understand how he could not live long without the beast that yields him so much. But greedy people, who have many other ways to make a living, do not think of this, and fit out steam vessels that can go everywhere, with guns that kill from far, and take from the Eskimo his all.

"This Walrus is a first cousin to the Sea Bear or Fur Seal of the jacket, and we must go down the Behring Straits to catch him in his home. Down past the St. Lawrence and St. Matthew Islands, the Walrus' summer haunts, we come to the Pribilof Islands, — St.

Paul and St. George, — where I spent those two years of much disgust ! ”

“ What does Pribilof mean ? ” asked Nat. “ It sounds as if it might be the Indian for pretty-far-off ” ; where-upon Dodo laughed in great glee and said, —

“ I shall always call those the Pretty-far-off Islands, for it is a true name for them and much easier to remember than the other. I missed that last week in my geography lesson ! ”

“ Pribylov was the name of the Russian explorer who discovered this group which now belongs to us,” said Dr. Hunter ; “ his ship the *St. George* giving the name to one of the islands. These islands were too far off shore for Indians to reach them, so that the Sea Bears and Sea Lions lived there in peace until the coming of civilized people a little more than one hundred years ago, but since then the cry has been, ‘ Kill ! kill ! kill ! — bulls, cows, cubs, everything ! ’ — the Buffalo’s story again, but this time carried out to sea until the poor, persecuted water brothers are the cause of dispute between nations, and it seems that soon nothing will be left of them but the very *bones* of contention ! ”

“ Wasn’t it awfully cold on these islands, Olaf ? ” asked Rap.

“ Not so cold as on the mainland, far less cold than you would think, for the warm Pacific current flows around them. In midwinter, it is true, ice floes come from the north and hush the song of the surf on the beaches, yet it is not so keenly cold as it is here. With June comes summer, for there are no half seasons like your spring and fall. In winter there are no days, in summer no nights.”

"It seems quite right, too," said Nat, "for in a place like that there can't be many leaves to *spring* up and *fall* down again."

"Summer is the season of cool fogs and mists that shield the Seals from the sun and keep them comfortable while on land. In fact, the summer weather is like your autumn season."

"Then it is no wonder, as one story says, that the Seal tribe, ages ago, going from its Antarctic home on a swimming excursion, should have found these islands a pleasant camping spot and passed word of it to all their relations," added Dr. Roy.

"What do you call the people on these islands, Uncle Roy?" asked Nat — "Eskimos or Indians?"

"They are Aleuts, one of the lowest northwest tribes of Indians and akin to Eskimos."

"Now," continued Olaf, "picture to yourself a fine, full-grown male Fur Seal as he comes up on the land the last of May to select the square of shore he wishes for his summer home. He is not more than five or six years old, which is the prime of Seal life. He is more clever than the Walrus, moves more easily, and measures about seven feet from tip of nose to where his tail would be, if it had not forgotten to grow. At this time, fresh from the feeding-grounds, he is fat and should weigh five hundred pounds. His head is small, but the eyes large and speaking. He wears a long mustache, but it is of bristles and not like that of the Walrus, and he has a way of closing his nose and ears in swimming to keep water out. The neck is long and the shoulders are thick, and he is a better shape, not sloping so much aft as the Walrus. His fore limbs are

merely a pair of black gloved hands, but his hind feet are wider, like a drawn-out human foot spread at right angles from its body. He uses these fore flippers in walking quite like legs, and, though he shuffles along, does not cling and crawl like the Walrus. His hind flippers propel him through the water like paddles.



SEA BEAR OR FUR SEAL.

“The male wears two coats, like most fur beasts. One of shining, strawlike over-hair, the other the soft under-fur we see in jackets. At the first glance you would say that this Seal is dark brown in color, with some white or grizzly hairs. The female is much smaller, not measuring more than five feet. She is less clumsy and of more graceful shape. Her head is well formed and she has gentle, lustrous eyes. Her skin, when wet, varies in color from beautiful deep gray and

whitish underneath, to an ashy brown mantle and buffy belly, when dry.

“From early May until the middle of June the Seals come from their winter feeding-grounds and haul upon land. The males come first, each striving for the place he likes best and fighting fierce battles with his rivals to secure it. Thus it happens that the strongest Seals keep the best places near the water’s edge, and the weaker are driven further inland.

“When the females come in late June or early July, only a day or so before their cubs are born, there is fierce war, each male Seal seizing the mates he wishes to come and live in the square of ground he calls his house, lifting them as if they were only so many kittens. Thus it happens that those strong ones near the shore secure a houseful, while those far up have hard work to find even one mate. Then there is always a herd of roving bachelors, young Seals and those who have no homes or mates, who go together in a separate place to spend the summer. The law holds that these bachelors are the only ones that should be killed for fur, and that no guns or dogs shall aid in their killing. If this law had been kept, then would the tribe still hold its own.

“The fur of this Sea Bear must be taken in June or July, before the winter coat is shed, or in early autumn when the new coat is fresh, for the law says these animals may not be taken on American ground between October and June.”

“But suppose people follow them and kill them in the water and shoot the females, too, — what happens then?” asked Rap.

"Trouble," said Dr. Roy. "Trouble between nations, unwise, angry words in the newspapers, and the killing out of Seals!"

"If Seals may not be chased with dogs or shot at, how are they caught?" asked Olive.

"They are driven up to the killing grounds, as pigs or cattle are driven to the slaughter house!" said Olaf, "and in this way it is done.

"The bachelor Seals, who are chiefly those under five or six years old, live by themselves, and lie near the water and sleep soundly, but in the homes or rookeries there is noise and tumult all night. These bachelors sleep on the beach, one close to the other, like rows of tiles upon a roof top. Down go the drivers, native Islanders, and take their stand between the water and the Seals, who, being awakened and seeing the men between them and the water, start landward, thinking to escape, and so are driven up to the killing places near the villages, where the Seal families will not be disturbed by them."

"Isn't it very slow walking?" asked Dodo.

"Yes, very; for though a Seal can run a few yards, he can walk safely only half a mile an hour, and the drivers must be careful not to hurry the Seals, or the heat makes their fur drop off and spoils the pelt."

"If a Seal is driven too fast he gasps and has to stop and fan himself, for Seals have no sweat glands to cool off the blood, and can only perspire by panting, like dogs," said Dr. Roy.

"Care must be taken not to kill very young Seals also. A Seal's skin is best when it is three or four years old, after that it grows uneven and ragged. The pelt

is taken quickly, as soon as the animal is dead, lest it heat and the fur loosens. Is it ready then to make a coat? Ah, no; it must be dried and sent away for skilful hands to pluck out the long rough hairs that cover the soft fur, and then they dye this under-fur to the soft color that you know, the color of that jacket that has in it the pelts of three Seal bachelors. Of the killing of the Seal I will not speak, only to say that I could not harden myself to it and so I came away.

“Meanwhile what happens in the rookeries? The male Seals roar and fight among themselves, the young are born, and the cows go daily to the sea for food, sometimes staying all night and leaving the sucklings hungry, for the cows are poor mothers, not caring much for their cubs. The males are brave, however, and fight most fiercely to defend their homes. So jealously are these homes guarded, lest any rival should touch their families, that the males will not leave to go down to the sea for their food, and so they stay on land and starve all summer. In the autumn, when housekeeping is over, they are thin and wretched, having used up all their fat, like the Bears at the end of winter.”

“How strange,” said Olive, “the Bear goes without eating in winter and the Seal in summer!”

“They suffer greatly in hot weather,” continued Olaf; “you may see them lying on their sides fanning themselves with their hind flippers, or find the females, as soon as the young have learned to swim, sleeping in the water with only their nostrils out. This habit of floating and sleeping makes them an easy prey for Sharks and the fierce Killer Whales. Even on land

the Seal sleeps so soundly that I have crept up and pulled his whiskers before he awoke. In August the homes break up, all is in an uproar, and the 'choo-choo-choo' call of the female sounds loud above the surf, though it is December before the last male has left for the winter feeding-grounds.

"The Fur Seal's brother, the Sea Lion, haunts these same islands, though he is hunted elsewhere with Otter spears and guns. He is useful chiefly to the natives of the Aleutian Islands, giving them all that the Walrus yields the Eskimo.

"The California Sea Lion looks much like a male Seal, but his neck is straight and thinner and his front flippers are cased in mittens without even a thumb, while the Seal, you see by the picture, wears short-fingered gloves. This Sea Lion wears no fur, but is covered with short hair, which varies in color with the season from yellow to dark brown. His voice is a deep lion's roar that can be heard above the storm, and his food is almost like the Seal's, — fish, shell-fish, crabs, and a few sea-birds. His flesh is not bad eating, and the fat and blubber are without the evil smell that makes the Seal so sickening to handle.

"This Sea Lion is shy, keener of eye and ear than the Sea Bear, and must be hunted by moonlight, the driving season being early autumn. When the Lions awake suddenly, like the Seals they start to escape the way they happen to face, some going seaward, the others being slowly driven up to the villages, for they can only creep and hobble along, and they have none of the cleverness of the Fur Seal. These also we will leave at the killing grounds; to follow them would only

sadden you. But we know at best they are useless to us, and trouble the Fur Seals by worrying them and disputing their breeding grounds, so the Aleuts are welcome to them.

“Another waterman there is that, even now, you may see for yourselves some day about a rocky harbor or river mouth. He wears hair and no fur, and he is the true Seal, not the Sea Bear. He is, or was, common to



HARBOR SEAL.

all coasts, and has many names,—Sea Dog, Hair Seal, Common Seal, or Harbor Seal.”

“Harbor Seal is the name that Wise Men prefer,” said Dr. Roy; “and when my father was a young man these Seals haunted the rocks of New York harbor in great numbers. Robbins Reef, that we have so often passed, Olive, was called after these Seals by Dutch sailors, robyn meaning Seal in their language.”

“I knew not that,” said Olaf; “but in spring they herd about Newfoundland, having their young in May and June, but going to the warmer sea islands in

winter. They are beautiful little Seals, with dull yellow skins, often handsomely mottled with black, such as they cover trunks with in my country; and among the Greenlanders it is said the women love the skin above all others for making trousers."

"Do savage women there wear trousers, the same as some women do here when they ride bicycles?" asked Dodo, much to her uncle's amusement.

"I have not seen those savages here," said Olaf; "but up in the north land women must dress much like men, or they would surely freeze.

"The Harbor Seal cow has a gentle, half-human face, and a better heart than the Fur Seal. She is a kind mother also to her single cub, protecting and loving it, and grieving if it dies. These seals are shy beasts, too, and are never caught in great numbers, even though their flesh makes the best seal beef. They lead lonely but happy lives, catching sea-birds and fishing and sporting in the water with their families.

"Now we will leave these watermen and hurry back home across country lest the 'Day-Dream Fox' grows sleepy and the real Dream Fox finds us far from home, and we have to lie out in the snow like the Polar Bear."

X

THE BEAVER'S STORY

(AS TOLD BY HIMSELF)



BEAVERS are strangely wise animals," said Dr. Roy, the evening that Nat chose a Beaver picture, "and the best way to give you a glimpse of their habits and homes will be to read you a Beaver's story of himself." So saying the Doctor took some sheets of paper from the table and asked Nat to bring a lamp, for they usually listened to the stories by the fire-light alone.

"Who wrote this story?" asked Dodo, "for of course a Beaver can't write, at least, I mean, in our language," for she had come to believe that animals can do almost everything. "Is it your writing, Uncle Roy, or is it daddy's?"

"Come and see for yourself."

"It is nobody's writing; it is printed with a type-writing machine," said Olive. "I suppose Olaf would say that the Dream Fox did it."

"No questions answered," laughed the Doctor. "No matter how the story found its way into words, or if it sounds like a fairy tale, I can promise that every word

of it is true. If you doubt it, you may ask the very first Wise Man you meet.

(A BEAVER LEAVES HIS WORK TO CHAT A FEW MOMENTS IN THE MOONLIGHT)

“I am a fourfoot of a very ancient family and one of the oldest of Mammals. Land and water both desired to own me, so Nature planned me to be shared by both, giving me the fore paws of a land animal and the strong webbed hind feet of a swimmer.

“As I sit on this low bank and look at my reflection in the pond, it seems to me that, though I am a decidedly remarkable and intelligent beast, I am very plain, or, an ill-natured person might say, ugly in appearance. My body is about three feet long from my nose to the beginning of my tail. I slope fore and aft, humping up in the middle like a haystack. My long claws are of the pattern given to burrowers, from the Badger to the Gopher, and my four gnawing teeth, of a strange design, are curved and powerful, the lower two being five and the upper pair four inches long. Yet they are set so deeply in the jaw that little more than an inch of them is seen, like tools that are braced deeply in their handles to give extra strength. The outside of these teeth is of a stronger texture than the inside, which causes them to wear down toward the back, giving them the cutting edge of a keen chisel.

“Look at my tail! It is nine inches long, and in the middle half as wide as its length; it is a flat, scaly paddle, in fact. You shall see how it serves me as a rudder, a danger signal, and a mason's trowel.

“The color of my fur coat is usually reddish brown,

tinged variously with yellow and sometimes veiled with black. My under-fur is all plain brown, about half an inch long and soft as a Seal's. It was this fur that led my race into trouble, and caused us to be so popular with trappers that we were killed out from about the rivers and ponds where House Children might have seen our lodges and runways as freely as they do those of the Muskrat. Our soft, even fur made fine Beaver hats; our pelts were strong and elastic—they made good gloves; our tails were layered with fat—they made good eating for the Indians. Once we were so important that the great Fur Company of Hudson's Bay stamped our name upon a coin for a sign of value, "1 Made Beaver."

"So we were trapped in and out of season, cruelly and wastefully, young and old together, until we are but a small tribe, and in all this wide country we inhabit but a few solitary spots, and so you do not know us.

"I am a wonder to the Wise Men, and there are many things about me that they cannot understand. According to their ways of measuring and judging, I am low among the Mammals. They find that I have a small heart and lungs, that I breathe slowly, have no skill as a hunter, and prefer to live on harsh vegetable food, such as the bark of soft-wooded trees. They look at my teeth and put me in the tribe of gnawers,—the family of Rats, Mice, and other nuisance animals. But when they come to watch me at my work, and see that I am a wood-chopper, architect, engineer, and mason, they are indeed puzzled, for they say: "A Beaver has a small, smooth brain; people who think have wrinkled brains. How comes this, for a Beaver thinks and plans?" Then



BEAVERS AT WORK.

the Wise Men confess that I am the most interesting animal on the whole Mammal tree (except man himself), and that they really know very little about me. The Indian, who knows all our ways, holds us more highly, weaving many stories about us, welcoming us as pets in the lodges, and loving us as House People love their dogs.

“‘Now you know how I look. I will tell you how and where I live, beginning with the springtime, in May, when every industrious pair of Beavers who own a home burrow and a woodpile, have, maybe two, or maybe half a dozen little Beavers in their house. As you know, we live about ponds and watercourses, and our summer homes are made in this fashion: Finding a good bank of clay or loam, by a favorite stream, we look for a place where the soil is braced by tree roots. Then we dive and begin a burrow under the water, going up into the bank, cutting through roots, and rolling out stones, until we have made two chambers, — an outer one for food, and an inner one above the water level for a living room, with a place for air to come in at the top among the tree roots. You may wonder why our doorway is always under water. It is so that we may swim out and not rise to the surface near our home, showing enemies where we live. Does not the Ovenbird slip from her nest, and, running through the underbrush, make her flight at a distance, for the same reason?

“‘A few weeks after our young are born they begin to gnaw soft bark, and then they soon join us in our wood-cutting excursions. The trees we love best for food are those with juicy bark, like the yellow birch, cotton-wood, poplar, and willow. If we are very hungry,

we can eat walnut, ash, and the harder maples ; but we do not relish them, and we sometimes use lily roots and grass for salad. It would be wasteful merely to gnaw the bark around the trunks of trees, besides this is not as tender as the bark covering the branches ; so, as we may not climb, nothing is left us but to fell the trees. Then we select a tree a foot or more in thickness, and begin our cutting from each side, upward and downward, our teeth making short, chisel-like grooves, hewing out wide chips. When the tree falls we run, and, diving, swim to our burrows lest some enemy should hear the noise and catch us at our work.

“‘ When all is quiet, we come out again, and like good craftsmen begin to chop our wood in lengths to carry home. We cut our fagots, measuring by their weight instead of length, so that a thick limb will be chopped in strips a foot in length, a thinner one two feet long, and so on, for we know how much a Beaver may carry easily. The wood is then taken to the storehouse of the burrow. The thick pieces we roll along down the bank perhaps, holding them between paws and chin in swimming, which we do easily, using our tails as rudders to guide us with our load. The smaller twigs we hold in our mouths, the ends trailing over our shoulders to the ground. If any logs are hard to move, we often use our tails as levers to pry them along, and our tails also help us to lift up in our arms the great stones, which we often have to move in building.

“‘ When the right trees are near our water homes, all goes well, but sometimes the near woods are all eaten or otherwise destroyed. The water from the ponds often runs back and floods the lowlands where

we have cut down all the trees, making it so wet that no more trees will grow; and rich, tall grass springs up, covering the decayed stumps. House People call these places Beaver Meadows. We do not like the wood of evergreens, and so often we have to search far away from water for our food, and after the trees are cut, they must be carried a weary distance home. We have two ways of doing this: one is to make a straight path-way by felling everything that would interfere with us; the other is to dig a canal between ponds or streams and, letting in water, float our wood home, as House People float their logs from lumber camps to sawmills.

“Having made our canal, three feet wide and as many deep, we must arrange to keep the water deep enough for our work. Deep water is a “must be” in the Beaver world, whether in canals or in the ponds and rivers. The water must be high enough to cover the doorway of the burrows.

“Next comes our work as engineers, for we have to build dams to keep the water back and make it stand at the exact depth we wish.

“House People have all seen the dams that keep the water in their mill ponds; but we build longer, better ones than theirs, sometimes perhaps they may be only a few feet in length, but at others many hundred. Often we begin by interlacing growing bushes with sticks, filling the gaps with stones and mud on the water side, then adding sticks from time to time below, until we have made our barrier strong enough. At other times we build over fallen trees, and raise a dam from them of almost solid mud, strengthened with tree boughs. We are never wasteful, and seldom use fresh wood for

this work, but save the sticks from which the bark has all been gnawed for all our building. Another thing we do, — we curve our dams *up* stream. Do you know why? If you were trying to push something, or some one back, would you stand straight up, or would you bend forward to meet the strain, and thus gain added strength? You would bend, of course, and so we bend our dams to push the waters back. We may be stupid and clumsy and ranked with Rabbits and Rats; our eyes and brains may be small, but you must see by this that we are rather clever at thinking.

“All summer we feed and work and play, making and repairing dams and felling our wood by night, but sometimes stopping to be idle, and rolling and basking in the sunlight. We are ever on the watch, however, even in play time, our keen ears catching the faintest sound of warning, and our alarm signal is far reaching. Our sentry has but to dive, bringing his flat tail with a quick, sharp blow upon the water, and the noise is echoed far and wide. Spat! spat! spat! go the tails of all the Beavers in the region as they disappear. Even when we lie sunning ourselves, we are on the alert, for it is Beaver law that when at rest every pair must lie facing each other so that, one looking each way, nothing may steal up unawares, and if we are suspicious even, we rise up on our haunches and listen to catch every breath.

“In September the serious task of cutting winter wood begins. We do not sleep the winter sleep, so we need food in plenty and better shelter than our bank burrows, for we live in places where ice and snow have a long season. Once in the far back, perhaps, the

climate was not so cold, but the Wise Men say that we American Beavers have been building dams and winter lodges for thousands of years, and they can prove their words by digging and showing you our ancient earth-works. How we came to need our island lodges is a legend in our family, but one that Heart of Nature will not yet let us tell, lest no one should believe it.

“Each Beaver family has its own lodge, for though we are sociable we do not approve of hotel life, and at most, several families may have lodges in the same pond. We Beavers know the places where warm springs, deep from the earth, feed the ponds, and near these spots we make our buildings. Starting from some sunken island, we begin our heap of sticks, building a thick mud and wicker wall and arching poles to support the roof of a living room, which is some half dozen feet across and well above the water line. This lodge has two entrances below water,—one for the family and one for food wood.

“Before ice and snow stop our tree-cutting excursions, every Beaver household moves into its lodge and has a sunken woodpile close at hand, from which the daily provisions can be taken by swimming under the ice. We Beavers can swim a half mile under water without rising through the breathing holes. You may wonder why, in the cold countries where we live, the ponds and rivers do not freeze to the bottom, or sudden thaws drown us out. In the first place, we make our dams the right height to give us the exact depth of water we need, and nature guides us where to build near the warm spring holes that keep the ice thin, and the heavy snows also helping us by shutting out the cold.

Then, if we see a freshet coming, we make a gap in the dam to let the water off, or if it rises too quickly, as sometimes in early spring, we swim for refuge to our summer bank burrows. Sometimes our woodpile grows water-soaked and sour, and we are glad when a thaw lets us cut down a fresh supply; but usually our winter life is happy and comfortable, for here in this spot no trappers may come to harry us from our homes.

“Our children stay with us until they are two years old, so each lodge harbors, besides the parents, the eight or ten children of two seasons. We are affectionate among ourselves, but are bound to keep Beaver law, which says that the young of every lodge, when fully grown, shall go out, find mates, and build lodges for themselves. Also, that they shall always go further down stream than their old homes. Down stream means the building of new dams and extra labor, which is most suitable for those with strong young teeth. The older Beavers, when they need new lodges, may go up stream to easy quarters; for as a Beaver grows old, and toward the end of his fifteen years of life, his teeth are dulled, and he cannot cut wood so easily for house and dam building. Beaver law despises laziness and says no Beaver shall steal from another Beaver's woodpile, and the penalty for such a theft is death! The Indians know these laws and how well we keep them. Often in a long cold winter, when all our bark is eaten, we gnaw up the hard wood itself for food, or pinch and starve rather than break the law.

“Each pair of Beavers are rulers in their lodge, building and repairing their own dams unaided except by members of their families; for sociable as we are, we

neither live nor work in colonies. If our young do not choose mates the first season that they leave us, they may come home that winter, but not again. Afterwards they must join the wanderers and those Beavers who, having lost their mates, refuse to take another. Thus our lives go on,—hewing, storing, planning, building, and repairing, unless trappers break up our peaceful homes.

“I who tell this story live on Lost Creek, which runs through protected land, where no trap may take me, and I am fat, happy, and content. I have a mate who is a clever tree chopper, and we are now building, raising our dam a foot or so, and mending places where our mischievous cousins the Muskrats have poked holes; sometimes they even try to share our lodges with us, like the impudent rats they are. We must deepen the water around a new lodge that we shall finish to-morrow; its roof poles are of poplars from the nearby bank, the sides are braced by willow and poplar basketwork, and I have beaten the mud covering hard and smooth with my flat tail. Our lodge has a broad entrance for wood also, where the cuttings will not stick when carried in, and a large dry room for my family of nine young and half-grown Beavers who helped me with the work, thus learning how to hew and build the lodges some of them will have to make for themselves next season.

“Yet in spite of all this work of mine, the Wise Men say, and think they prove it by my body, that I am but a slow, lowly Mammal, no huntsman, and a cousin of Rabbits and Rats, with a small smooth brain that has no business to think and plan. I prove by my own works that I have both thought and judgment, and I wish that you could visit me and see my work yourself.

“‘Hist! the alarm beat comes down river! Beaver law says dive and strike water with your tail in going; so travels the signal through the moonlight. I hear a crashing in the brushwood — now my turn comes! A good evening to you!’ (The Beaver dives.)

“Splash! not a Beaver within sight. The September moon shows heaps of sticks and black water, while a restless Moose, seeking its mate, wades along the pond edge drinking and snatching mouthfuls of water-lily stems that will be soon cut down by the frost, then bellows a joyful answer to a faint call from far up the river.”

